

209075

JPRS-UWE-87-007

15 JUNE 1987



**FOREIGN
BROADCAST
INFORMATION
SERVICE**

JPRS Report

Soviet Union

WORLD ECONOMY & INTERNATIONAL RELATIONS

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

No 3, MARCH 1987

19980616 118

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL
INFORMATION SERVICE
SPRINGFIELD, VA 22161

DTIC QUALITY INSPECTED 6

27
140
A07

SPECIAL NOTICE

Effective 1 June 1987 JPRS reports will have a new cover design and color, and some reports will have a different title and format. Some of the color changes may be implemented earlier if existing supplies of stock are depleted.

The new cover colors will be as follows:

CHINA.....	aqua
EAST EUROPE.....	gold
SOVIET UNION.....	salmon
EAST ASIA.....	yellow
NEAR EAST & SOUTH ASIA...	blue
LATIN AMERICA.....	pink
WEST EUROPE.....	ivory
AFRICA (SUB-SAHARA).....	tan
SCIENCE & TECHNOLOGY.....	gray
WORLDWIDES.....	pewter

The changes that are of interest to readers of this report are as follows:

USSR reports will become SOVIET UNION reports.

The USSR REPORT: NATIONAL ECONOMY will be titled SOVIET UNION/ECONOMIC AFFAIRS (UEA).

The USSR REPORT: POLITICAL AND SOCIOLOGICAL AFFAIRS will be titled SOVIET UNION/POLITICAL AFFAIRS (UPA).

The following Soviet journals will be added to those which are already issued in separate series:

- EKO: ECONOMICS & ORGANIZATION OF INDUSTRIAL PRODUCTION (UEO)
- THE WORKING CLASS & THE CONTEMPORARY WORLD (UNC)
- PEOPLES OF ASIA & AFRICA (UAA)
- MILITARY HISTORY JOURNAL (UMJ)
- FOREIGN MILITARY REVIEW (UFM)
- AVIATION & COSMONAUTICS (UAC)
- SOCIOLOGICAL STUDIES (USS)

If any subscription changes are desired, U.S. Government subscribers should notify their distribution contact point. Nongovernment subscribers should contact the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

15 JUNE 1987

Soviet books and journal articles displaying a copyright notice are reproduced and sold by NTIS with permission of the copyright agency of the Soviet Union. Permission for further reproduction must be obtained from copyright owner.

SOVIET UNION WORLD ECONOMY & INTERNATIONAL RELATIONS

No 3, March 1987

[Except where indicated otherwise in the table of contents the following is a complete translation of the Russian-language monthly journal MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA published in Moscow by the Institute of World Economy and International Relations of the USSR Academy of Sciences.]

CONTENTS

English Summary of Major Articles (pp 158-159).....	1
Survey of Mass Democratic Movements Today (pp 3-17) (V. Skorokhodov, A. Trukhan).....	5
Experience of U.S. Companies in Pricing, Quality Control (pp 18-27) (S. Nikitin, Ye. Glazova).....	23
Evolution of Capitalist Efficiency Promotion in Industry (pp 28-40) (E. Vilkhovchenko) (not translated)	
'Star Wars' and Washington's Allies	
Western Europe on SDI (pp 41-48) (G. Vorontsov).....	35
Japan's Role in U.S. Military-Space Plans (pp 49-55) (S. Chugrov).....	48
DEBATE	
Continuing Discussion of Capitalist Economic Regulation (pp 56-67).....	59

PROBLEMS OF THE S&T REVOLUTION

S&T Progress and New Subjects of Labor (pp 68-75)
(V. Rosin) (not translated)

U.S. Official High Tech Policy (pp 76-82)
(N. Pusenkova)..... 61

OUR COMMENTARY

New Phase of Conflict in Ulster? (pp 83-86)
(Kh. Zagladina) (not translated)

EAST-WEST

Evolution of West European-Soviet Economic Ties (pp 87-94)
(Yu. Andreyev)..... 73

MARKET ROUNDUP

The Capitalist Economy in 1986 (pp 95-113) (not translated)

IN THE FOREIGN PRESS

Reality and Prospects for Arms Control (pp 114-125)
(V. Avakov)..... 85

SURVEYS, INFORMATION

"The Brain Drain": New Trends and Old Problems (pp 126-131)
(B. Porfiriev)..... 104

Currency Policy and International Capitalist Trade (pp 132-135)
(M. Yershov)..... 115

WE ANSWER READERS' QUESTIONS

Key-Ready Concept of Construction Explained (pp 136-138)
(Yu. Morando)..... 122

SCIENTIFIC LIFE

Conference in Remembrance of Sergey Tyulpanov (pp 139-141) (not translated)

BOOKS, AUTHORS

A. Kuvshinnikov Review of Book by Yu. Popov and Zh. Zigler 'The Year 2000: End of Mankind? East-West Dialogue' (pp 142-144) (not translated)

Ye. Yegorova Review of N.G. Chicherina's 'International Concerns: Social Policy, Propaganda' (pp 144-145) (not translated)

USSR Trade With Developing Countries (pp 146-147)	
(L. Sabelnikov).....	128
Ye. Bragina Review of the UNIDO publication 'Industry in the 1980's. Structural Change and Interdependence' (pp 148-150) (not translated)	
M. Kolchugina Review of 'Wie buergerliche Oekonomen erzogen werden. Eine Auseinandersetzung mit der "Volkswirtschaftslehre" von Paul A. Samuelson' (pp 150-152) (not translated)	
S. Dubinin Review of A.V. Poletayev's 'Profit of American Corporations. Singularities of Postwar Dynamics' (pp 153-154) (not translated)	
D. Malysheva Review of I. William Zartman's 'Ripe for Resolution. Conflict and Intervention in Africa' (pp 155-156) (not translated)	
MEMO Representative Meets With Readers (p 157).....	132

PUBLICATION DATA

English title : WORLD ECONOMY AND INTERNATIONAL
RELATIONS No 3

Russian title : MIROVAYA EKONOMIKA I MEZHDUNARODNYYE
OTNOSHENIYA

Author(s) :

Editor : Ya.S. Khavinson

Publishing House : Izdatelstvo TsK KPSS "Pravda"

Place of publication : Moscow

Date of publication : March 1987

Signed to press : 12 February 1987

Copies : 26,000

COPYRIGHT : Izdatelstvo TsK KPSS "Pravda".
"Mirovaya ekonomika i mezhdunarodnyye
otnosheniya", 1987.

ENGLISH SUMMARY OF MAJOR ARTICLES

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 158-159

[Text] V. Skorokhodov and A. Trukhan in the article "Mass Democratic Movements of Today" note that in last few decades various mass democratic movements-- antiwar, ecological, women's, democratic and others have emerged and began to develop dynamically in the capitalist countries. It serves as evidence of an existing gigantic potential of social protest among broad strata of population in these countries and their striving to actively influence the political process. The movements have emerged due to the close interweaving and inter-connection of two sets of complex problems. The first is the problem of war and peace, pollution of environment and the socio-economic gap between industrially developed capitalist countries and the developing world. The second--has taken shape as a result of the evolution of state-monopolistic capitalism and embraces the sum total of social, political and humane problems which not only are far from being solved but have attained greater urgency today. In a comparatively short period of time the mass democratic movements have considerably extended their sphere of influence and become a mighty pole of attraction for social forces which oppose monopolistic capital. Their development has introduced new elements into the entire system of bourgeois democracy and revealed additional directions of antimonopolist protest. The authors point out that mass democratic movements are gradually maturing but at the same time their structural and theoretical heterogeneousness which up to a certain moment gave them an advantage over political parties, is beginning to erode their principles and paralyze their further development. While posing the question about the political identification of the movement and mapping out of more clear-cut forms of organization, their ideologists at the same time express their fear that parliamentary illusions are gaining momentum within the movements, that a leading hierarchy is taking shape and lastly the movements are losing those original features which won the people over to their side. As yet no solution to these complicated problems has been found. But a noticeable shift to the left of many mass democratic movements, their growing political and social "maturity," more balanced and constructive attitude towards a possible alliance with workers' parties and trade-unions, successful though rare attempts to emerge beyond national frontiers in the solution of the global problems facing them, as well as entire humanity, all speak of positive quests meeting the demands of the broad masses. The authors state that the complicated problems which face the main driving forces of

social progress in view of emergence on the political arena of mass democratic movements can be successfully tackled only in search for common interests and joint actions.

The article "Price and Quality of Production: Experience of American Companies," by S. Nikitin and E. Glazova is a study of the U.S. corporations' price policy which takes into account production as well as consumption. The analysis of the American particulars in corporate pricing is performed on the basis of Marxist postulates about the equal importance of costs and qualitative performance of products in the policy of prices. Among the factors influencing the level of prices the utility of goods, elements of their prestige, stage of product life cycle, existence of substitutes are of prime significance. Then come the considerations of production costs, possibility of idle capacities, distribution of indirect expenditures. American companies' pricing schemes are not at all rigid. Large corporations strive to manipulate with various price factors, trying to shape the market situation according to their long-term goals. At the same time they constantly adjust to the existing conjuncture changes. It's typical of American companies to individualize prices for certain contracts and definite consumers. In order to characterize the concrete mechanism of this individualization of prices it's necessary to specify three groups of manufactured goods. Firstly it's modified production resulting in goods with improved properties. Secondly, it's substitutes varying in methods of exploitation or in domains of utilization. Thirdly it's principally novel commodities. For each group of goods American companies pursue a specific price policy with a peculiar mechanism. As far as the current methods of prices' formation are concerned one can distinguish two wide spread ways of pricing, namely the establishment of "relatively high prices ('skim milk' prices)" and "relatively low prices (breakthrough prices)". Both methods are used in close connection with quality characteristics of goods.

The article "Evolution of the Capitalist Rationalization of Labour (1970s-1980s)" by E. Vilkhovchenko indicates that a process of revision of hitherto seemingly unshakeable principles of human resources employment and set notions, concerning rational model of labour, is progressing in capitalist countries. Initiated in the majority of developed capitalist countries at the turn of the 70s the readjustment under the term "labour humanization" manifests itself primarily in the replacement of some methods of economic compulsion, firmly established in capitalist production of factory system, theoretically substantiated by F. Taylor and his followers in their works and widely rooted in production. The author points out that in the present day capitalist production with its emphasis on greater flexibility, effectiveness and competitiveness and more complicated structure of a comprehensive worker there is growing recognition of the hindering role of the Taylor "model" of labour. But the new concept of "fruitfull rationality" is identified with a more thorough employment of the reserves of the labour forces, particularly intellectual, moral and psychological. Consequently the employment of complicated, skilled labour, the encouragement of initiative and versatile labour motivation of a worker are becoming an integral part of production intensification and the social strategy of an increasing number of firms. Hence the objective need arises for labour fuller change laws application, of time and again, underlined by K. Marx and F. Engels. The concept of a

"productive" worker which is taking shape today alters the philosophy of economic domination by capital and along with it the labour organization principles. In the capitalist system of exploitation new trends are paving way in sharp contest with firmly founded Taylorism. The author points out that the social processes of the 60-70s result in a crisis of Taylorism and the need for modernizing the entire system of capitalist exploitation. These processes in modified forms are developing in the altered conditions of the 80s.

The military-strategic and international political consequences of creating an American large-scale anti-missile system with space-based components acquires a global nature. In different parts of the world the understanding is maturing that the main danger of SDI lies precisely in the transfer of the arms race to a new sphere in an attempt to go out into outer space with offensive arms and thereby to achieve military superiority. Hence those parts of the American "star wars" programme evoke supreme interest which is concentrated on Washington's relations with its allies. The editorial board of the magazine publishes two articles on the subject: G. Vorontsov. "Western Europe and SDI" and S. Chugrov. "Japan's Role in Military-Space Plans of the USA." Both articles note that the Reagan administration stakes mainly on convincing its allies not only in Western Europe but in Asia as well that by creating an anti-missile shield the United States would allegedly be able to cover not only itself but the corresponding states in Western Europe and Asia. It goes without saying that the allies will have to contribute to financing the military and technological development of the programme. Contrary to what its advocates claim, such a system is obviously incapable of rendering nuclear weapons "impotent and obsolete", nor can it reliably protect the territory of the USA, let alone that of its allies in Western Europe and other regions of the world. Nor will various limited versions of an ABM system with space-based elements in any way contribute to enhancing the stability of the military-strategic balance. Both articles note that the strengthening of the national security should be sought in complete elimination of nuclear weapons, the building of an all-embracing system of international security, ruling out any wars, both nuclear and conventional.

Drastic shifts in the structure of state monopoly capitalism, state regulation of capitalist economy are today the focus of numerous studies in the Soviet Union and abroad. However, a lot of theoretical aspects of this theme still are not covered by Soviet and foreign economists because of its multifacet character and perplexity. Last year the magazine opened a discussion "State Regulation and Private Entrepreneurship in Capitalist Countries: Evolution of Regulations" in order to give due analysis to various aspects of this problem which is of great theoretical and practical value. Some questions have been already raised in the articles by V. Kuznetsov and V. Studentsov (No 10) dealing with problems of the interaction of reprivatization and bourgeois nationalization and others. In this issue the magazine presents the article "State Property as an Element of the System of Economic Regulation" by Ya. Pevzner, where he states that we now observe the essential change of state monopoly regulation towards rapprochement between macro-economic state guidance and functioning of private enterprises. "Commercialization" of state property is a constituent element of his process. Alongside private enterprises appear to be in greater dependence on state credit, state orders, guidance, etc. S. Papyan (Yerevan) in "To the Question of the Use of Category

'State Monopoly Capitalism'" argues that the concept of state monopoly capitalism is still very important. Its meaning reflects nowadays the particulars of reproduction processes brought about by fusion of state political power and economic potential of business. At the same time it would be expedient to use state capitalism as the term for the processes taking place in the public sector. I. Osadchaya in the article "Will State Monopoly Capitalism become State Capitalism?" says that the evolution of state monopoly capitalism takes another direction. New systems of interrelation between the state and private business emerge, new balance of market and regulation is shaping both on the national and international levels.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

CSO: 1816/7

SURVEY OF MASS DEMOCRATIC MOVEMENTS TODAY

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 3-17

[Article by V. Skorokhodov and A. Trukhan: "Mass Democratic Movements Today"]

[Text] Recent decades have been marked in developed capitalist countries by the emergence and dynamic development of mass democratic movements: antiwar, ecological, women's, alternative and civic initiatives. This testifies to the tremendous potential of social protest among broad strata of the population of these countries and the aspiration of large masses of people to influence the political process most actively.

The movements emerged as a consequence of the close interweaving and interaction of two sets of most complex problems. The first--global problems of the development of human civilization: war and peace, environmental pollution and the gap in socioeconomic position between the industrially developed capitalist countries and the developing world. The second took shape as a result of the evolution of state-monopoly capitalism and incorporates the sum total of social, political, psychological and humanitarian problems of bourgeois society, which not only have not been solved but which have today assumed even greater seriousness.

"A characteristic feature of our time," the new version of the CPSU Program observes, "is the upsurge of mass democratic movements in the nonsocialist world." The antagonism between the monopolies and the vast majority of the population is intensifying in the capitalist countries. The professionals, office workers, farmers, representatives of the urban petty bourgeoisie and the national minorities, women's organizations, the youth and students are joining increasingly actively in the struggle against the domination of the monopolies and the reactionary policy of the ruling circles. "These movements are objectively aimed against the policy of reactionary imperialist circles and are merging with the general stream of the struggle for peace and social progress."

In a comparatively short time the mass democratic movements have expanded their social base appreciably and become a strong pole of attraction for

social forces opposed to monopoly capital. Their stimulation has introduced new elements to the functioning of the entire system of bourgeois democracy and opened additional directions of antimonopoly protest.

Democratic Movements in the Public-Political Life of Developed Capitalist Countries

The basis of the rapid growth of the mass democratic movements is continued exacerbation of the contradictions of capitalism, its offensive against the vital interests of an increasingly broad section of the population of Western countries and the increased aggressiveness of governments' foreign policy. An important part in the appearance of new types of civic protest has been performed by the essential evolution of the social structure of the developed capitalist society, particularly the growth of new middle strata (professionals, office workers, government officials) in the 1950's and 1960's and subsequently the sharp deterioration in their position as a result of the crisis processes of the 1970's-start of the 1980's.

The accelerated introduction in the nonproduction sphere of the achievements of the S&T revolution and progressive forms of the organization of labor is contributing to the spread in these strata of anarchic, individualist and antistatist moods. The limited opportunities under capitalist conditions for influencing social processes is engendering serious debate over the methodology of the analysis of socioeconomic development, evaluation of the prospects and limits of S&T progress and the correlation of the economic, social and ecological phenomena connected therewith. These considerations are summoning into being two different trends in the said circles of bourgeois society: one is social pessimism, escapism, nihilism and the search for "niches" wrung from society, the other is an aspiration to influence the existing situation via civic protest movements.

Numerous public opinion polls, special studies and also election results in various countries show that the base of these movements is made up mainly of young people aged 18-35, men and women to a roughly equal extent living in cities, representatives of the new middle strata and trainees and students. They are characterized by a high level of education, an interest in politics in general and simultaneously a dislike of the forms thereof traditional for the West and also preference on a personal scale of priorities for so-called "post-material" values, that is, a broadening of democracy, defense of peace, environmental protection, sex equality and so forth.

Represented in the mass democratic movements to a far lesser extent are the traditional middle strata: petty businessmen, tradesmen and craftsmen. They display the greatest assertiveness in the ecology movement, particularly if industrial development is a direct threat to their well-being (thus in a number of West European countries viniculturists, fearing radioactive contamination of their products, have been very vigorous in protesting the construction of nuclear power stations).

Workers participate in the mass democratic movements individually, regardless of their proletarian organizations. For example, young workers, in the main, who are not members of unions or parties of the left vote for the Green Party

in the FRG as the representative of the mass democratic movements. There has been an increase recently in the participation of the unemployed in the democratic movement.

Mass democratic movements have in the time that they have been in existence undergone considerable evolution. More often than not at the basis of their emergence were quite important, but narrow problems born of abuses by the monopolies, the sluggishness of the bureaucratic machinery and disregard for "minor matters" on the part of the bourgeois or social democratic parties in power.

Even the modern antiwar movement, which has attracted to its orbit tens of millions of people and has become a substantial factor of both domestic political and international life, was born when people felt that nuclear death was located a few hundred steps from their homes. Fears for oneself and the life of one's children grew into concern for the fate of the world and contributed to a clear recognition that each person's physical existence and survival are most closely linked with the fate of terrestrial civilization.

No mass democratic movement has attracted such a mass of people and contributed to the emergence of such a large number of diverse and dissimilar organizations and groupings as the antiwar movement. It numbers in its ranks communists and social democrats, believers and atheists, former NATO generals and pacifists, representatives of practically all major socio-vocational categories and the unemployed. Despite all its polychromatic and contradictory nature, perhaps precisely thanks to it, the antiwar movement is contributing to the surmounting of political apathy and torpor born of crisis processes in world development and profound doubts as to people's capacity for coping with them.

The growth of the education, knowledgeability, political involvement and social exactingness of the masses and the very practice of the mass democratic movements contributed to the gradual emergence in the participants therein of the idea of the interconnection of the "individual problems" being raised by them and the impossibility of their effective solution without arrival at the global level of interpretation of the processes developing in the world. The growing significance of the struggle for peace and against the arms race and threat of thermonuclear war contributed to a tremendous extent to recognition of this.

As a subject of acute ideological and political struggle, the philosophical concepts of the mass democratic movements are elaborated both within them and introduced from outside by various research establishments and "independent" publishers. The basis of the majority of these is criticism of the "industrial society," the level of the social division of labor which has been reached and the main directions of S&T progress.

Granted all its contradictoriness, the theoretical quest of the mass democratic movements is proceeding in the direction of the elaboration of a new, fairer and more humane model of human civilization. It is distinguished by great attention to problems of the individual and means and methods of overcoming man's estrangement from nature and society. The association of

their philosophical tenets with actual social practice and constant enrichment and complication in the process of the accumulation and interpretation of increasingly significant experience are characteristic.

To proceed from the criterion of positive social creativity, the theoretical quest of the mass democratic movements is a symbiosis of counterculture and ecological rebellion against bourgeois society. The movements lack a common socioeconomic concept. Their individual projects are based on the most varied ideas, from simple considerations concerning thrift and an ascetic lifestyle and models of simple handicrafts labor for satisfaction of intrinsic needs through plans of the general equality of the peoples and the creation of a just order of the world economy in accordance with the criteria of equal partnership.

A central place in the alternative economy concepts is occupied by the demand for a switch from the inordinate requirements created and stimulated by advertising and the market to reasonably limited "social requirements". As a result of renunciation of the market economy and the elimination of the giant production structures, certain theorists of the alternative and ecology movements believe, the preconditions are to arise for the creation of a qualitatively new socioeconomic "ecosystem," that is, the balanced development of society given preservation and the rational use of the habitable environment. The "ecosystem" presupposes a new type of social organization based on the self-government of the masses organized via committees, councils and groups dealing with problems of people's daily life. The "ecosystem" theorists advocate the maximum decentralization of political power and production. They believe that society should function on the basis of small-scale collectives. The village, neighborhood and community are seen as elements of the social building of the "ecosystem". Their small size could contribute to the realization of local democratization and the establishment of active collective ties.

Predicting for mankind the gloomiest prospects in the event of it not renouncing its former logic of social development (proceeding from the need for further economic growth and consumption), the theorists of the mass nonparty movements propose utopian projects of an ideal future society. A model created by Swedish ecologists may serve as an example (1). In their opinion, social organization may be changed by way of fundamental and profound reforms aimed at removal of the monopoly of political power and endowment of the majority of the population with real rights and possibilities of actively participating in public affairs. Anticipating that the changes would give rise to resistance on the part of the political parties and various social groups, the authors of the model do not name the specific forces which would be the conduits of these reforms but gamble on "the general upsurge in interest in public affairs" being able to surmount possible difficulties.

As a result of decentralization the country would be divided into communes with a population of approximately 3,000 persons. Each would elect an executive body in charge of educational matters, social security and leisure time. Given the abandonment of centralized government establishments, there would be an increase in the number of positions requiring political responsibility. Practically each citizen would be able to influence the

decision-making process (2). The commune would have two or three schools and a system of social offices and information centers. Through them the citizens would be able to express their wishes, turn for help and communicate their attitude toward this measure or the other implemented by the executive authority.

A goal of communal policy would be the utmost enrichment of leisure time and replacement of the old system of social security with new forms of the mutual assistance and mutual support of the inhabitants. As a result the overwhelming majority of the population would have a greater interest in a change in lifestyle, rapprochement with neighbors and the creation of a humane climate in the communes. Consumption, to which previously the lion's share of free time had been devoted, would be relegated to the background. The feeling of alienation, abandonment and isolation would be less acute, and people would once again acquire a taste for intercourse with friends.

Decentralization would lead to new methods of education. Libraries, movie theaters and sports centers would be managed by communes seeing as the main goal struggle against a commercial and mercenary spirit and the spread of sham culture. People would not only be introduced to high works of genuine art and literature but would also gain an opportunity to display their gifts.

The sense of such projects, which with this variation or the other are being elaborated by theorists of various nonparty movements, amounts to a renunciation of large-scale production and centralized state control and the surmounting of the most obvious manifestations of the inhumane essence of the capitalist system.

Although the theoretical constructions of the new social movements cannot be deemed orderly and consummate, several common principles, which are contained in the majority of them, may be distinguished. The activists of these movements intend achieving their goals by employing a so-called "multifront strategy" aimed at doing away with the former system. The gradual abolition of the division of labor by way of the increasing equality in the distribution of the socially necessary types thereof: executive, creative and subordinate, heavy and monotonous is proposed primarily. Subsequently it is proposed introducing universal general education, whereby obtaining a degree would be the prerequisite for participating in the accomplishment of economic and social tasks.

The central authority would retain the minimum of functions, while basic social life would develop via collective forms--in housing and labor associations and new voluntary forms of community living and intercourse. There would be a democratization of all social spheres and decision-making centers, and the power of the bureaucracy and oligarchy would thereby be finally done away with. All these most important changes, per the idea of the theorists of the new social movements, are impossible without a radical restructuring of the prevailing requirements and principles.

In their opinion, social changes should occur in decentralized and comprehensive manner, having an impact on all spheres of modern man's being. The very appearance and development of the movements is seen as "the signal

for entry into a freer and more humane future in which the individual will be able to participate in the formulation of decisions and to select and will not be entangled in nets of prescriptions, rules and structures being plaited increasingly tightly by organizations and the bureaucracy" (3).

In raising the question of realization of their goals the supporters of the new social movements not only are not putting their hopes in the machinery of state but calling for the maximum distance from it. They regard the need for and inevitability of their goals as a natural process of the maturation of the new system of value orientations and types of social behavior conditioned thereby.

The leaders, ideologists and rank and file participants in the mass democratic movements are characterized by strikingly expressed impatience and an endeavor not to put off realization of the plans until the distant future but to attempt to implement them now even, albeit partially.

The concept of "alternative" among the supporters of the mass democratic movements, who are not isolated from one another but, on the contrary, more often than not intersect and have a tendency to merge in a single stream of social protest, is applied to all institutions and in all spheres of social life. In their opinion, it is possible right now to organize centers of the alternative economy and alternative technology models and new types of schools, hospitals, theaters and newspapers. The experiments being conducted by these movements, from rural communes, biostores selling farm produced grown without the application of chemical fertilizers and mutual assistance organizations as far as meditation centers are extremely diverse.

Of the several tens of thousands of alternative projects which exist currently in the developed capitalist countries, several major areas in which the majority of them is working may be distinguished. The alternative movements are characterized by the organization of small craftsman-artisan groups, service centers and stores. In the majority of cases it is people without special training who work at such enterprises, nonetheless, many of these enterprises are proving perfectly stable either because there is no competition between them or inasmuch as they are receiving tangible moral and financial support on the part of the community. As a rule, such workshops and enterprises use primitive and cheap equipment which is easy to handle. This leads to the need to work for a longer period of time, but the goods manufactured there are of low competitiveness. However, the possibility of oneself determining the nature and time of work and its rhythm, acquiring broad skills and participating from start to finish in the process of the manufacture of the products and relations of friendship and mutual assistance in the group instead of the competition and "pressure on productivity" at the capitalist enterprise are greatly attractive to people, the youth particularly.

The practice of the alternative movements in the economic sphere reveals two possible paths of development of their enterprises. The first is the continued intensification of the alternative nature of the projects, the "testing" of various forms of the workers' democratic self-management and the formation of a new production climate. The second is the absorption of these enterprises by

small business, which would be promising for the capitalist system since it would make it possible to smooth over the problem of unemployment to a certain extent.

Another important field in the activity of the new social movements is the formation of housing associations and farm communes closely connected with the squatters' movement. They are conducting an active struggle against capitalist city planning policy, destruction of the quality of life in the cities and the predominance of private over public transport and against the entrenchment of people's passiveness and separation by modern urbanization and undertaking a search for and preserving cultural monuments.

Numerous farm communes arising where it is possible to acquire a home or holding comparatively cheaply are distinguished among the alternative projects by turnover of composition and the shortest duration of existence. In the majority of cases they disintegrate relatively quickly, being unable to overcome the difficulties of cultivating the soil (this is connected to a considerable extent with the refusal to use mineral fertilizer) and make contact with the local population.

The activity of the mass democratic movements is distinguished by the greatest assertiveness, despite the shortage of financial resources, in the social sphere. For example, in the FRG they have succeeded in undertaking such social initiatives as "Action--Child in Hospital," "List of Contacts for Convicts," "Neighborhood Old and Blind Initiative," "Social Therapy--Frankfurt" and others. These initiatives are not confined to charity but attempt increasingly extensively and persistently to call people's attention to the causes of the discrimination and the unsatisfactory work of the official social security system. Despite the limited nature of their forces and resources, the alternative groups sometimes operate more efficiently than the state and private services of the same profile since the people under their care show more trust in people who have come to their assistance voluntarily.

The alternative groups are attempting to tackle the task of boundless scale and complexity of organizing a system of social security independent of the state and based on entirely different principles. Together with the practical assistance these groups are making an undoubted contribution to the awakening of people's political self-awareness and their creative potential. It was precisely under the impact of the practice and propaganda of the "alternatives" that pensioners' parties emerged in the FRG in the fall of 1982 and in Norway in the spring of 1985 and "neighborhood committees" in Spain and Portugal and "mutual assistance groups" in France have become active.

Both the theoretical studies and, most importantly, practical activity of the new social movements prove that they emerged as a form of social protest against the progressive infringement of democratic rights and the bureaucratization of the modern bourgeois state and are oriented toward the solution of a broad range of problems of day-to-day life: housing, leisure time, children's upbringing, the educational system, services and so forth. The civic initiatives and ecology and feminist movements manifest an aspiration to "manage" without the state and to be somewhat further removed from the callousness and bureaucratism of its institutions. Analyzing the

experience of numerous more or less successful initiatives, Soviet scholars have noted that the "term 'alternative movements' collectively signifies also the sum total of actions aimed at a change in the forms of human community living" (4).

Having begun with small matters and individual demands, many mass democratic movements ran into the sum total of social and political relations of bourgeois society. The purposeful, but far from always successful attempts to distance themselves from them have merely shown with new force and clarity that realization of the radical projects concocted by the movements is possible only as a result of a fundamental transformation of the entire system of social relations.

Not only in theory but also in practice the mass democratic movements aspire to operate outside of the framework of party rivalry, and if they do assume the form of political organizations, they try to secure for themselves the status of "antiparty parties". The ecology movement has moved furthest along the path of political institutionalization, and the success of the Greens in the FRG was a powerful stimulus to the formation of ecology parties in other developed capitalist countries also (at the present time in West Europe, for example, only in Norway and Greece are there no Green parties or lists).

The "antiparty" parties are becoming an independent political force, albeit negligible initially, affording new opportunities for propaganda of the ideas and demands of democratic protest. The facts testify that the possibilities of mobilizing the population for the mass democratic movements and their representatives at the party-political level are relatively great. The 3-10 percent of the vote which they usually obtain at elections is not the limit. In individual regions the movement is easily managing to win over half of the population even. Thus at the time of the 1982 land elections in Hessen (FRG) in Wangerhausen, where it was planned building an enterprise for the reprocessing of the radioactive waste of nuclear power stations, the Greens, who were actively opposed, obtained 67.8 percent of the vote (5). In the FRG, Belgium and the Netherlands the Greens already have a relatively stable electoral base which is little subject to the fluctuations of the political situation. The political choice of their supporters is of a stable and steady nature (6).

Interparty channels and also politicization of the movements in the course of the struggle for peace are making more favorable the opportunities for the internationalization of mass democratic protest. Dutchmen who had arrived by bus constituted one-tenth of the 300,000-strong antiwar demonstration in Bonn on 10 October 1981. Representatives of almost all the ecology parties of West Europe set up their Coordinating Bureau at the start of 1984. The West European peace movement attempted, unsuccessfully, it is true, to acquire observer status at the Stockholm Conference on Confidence-Building Measures, Security and Disarmament in Europe.

A reflection of the global nature of the mass democratic movements has been the formation of international nonstate organizations operating under the same or similar slogans and employing the same methods of struggle, like Greenpeace, for example. Their activity is distinguished by assertiveness and

diversity: they have frequently attempted to impede French nuclear testing in the South Pacific and coordinated the joint actions of the antiwar movement of various countries and they sent their representatives to Reykjavik.

The formation of parties based on the protest movements and the formation of the corresponding international coordinating centers and international nonstate organizations of such a type are additional factors contributing to the gradual conversion of the mass democratic movements into an independent force of the Western countries' social development.

The Mass Democratic Movements and Real Socialism

The attitude of the mass democratic movements toward real socialism is contradictory. They recognize its considerable successes in the solution of the important problems facing mankind and are treating the socialist countries' experience in the sphere of environmental protection and the creation of an all-embracing and efficient system of education and social security with increased attention and interest.

At the same time, however, the theories being formulated by representatives of the new social movements are characterized by sharp criticism of both capitalism and real socialism. It is based on the assertion that in the sphere of technology, organization and division of labor, growth of large-scale structures and bureaucracy and alienation there is more similarity than differences between socialism and capitalism.

Only a "third way," therefore, could, from their viewpoint, be the true way. "As practical criticism of the social systems of East and West, the alternative movement is showing the real meaning of freedom, individuality, solidarity, pluralism of opinions, creativity and requirements proper. It has created forms of life and labor pointing to future development. This pertains, specifically, to the surmounting of man's loneliness and isolation and expansion of the nuclear family... and a new attitude toward flora and fauna, new forms of cooperation in labor, scorn for consumerism, an intelligent combination of labor and leisure, abolition of the division of labor and discussion of the problem of restoration of the link between public and private life. Thanks to this, the alternative movement has created opportunities whereby its participants will be able to find ways toward satisfaction and happiness more quickly than in the official world" (7).

The aspiration to formulate an original path of social development unparalleled in the past, distancing themselves here from the two main sociopolitical systems, is having a pronounced impact on the attitude of the leaders and rank and file participants in the mass democratic movements toward the main problems of the present day and toward their place and role in their solution.

The "two superpowers" theory, assigning responsibility for the arms race and the exacerbation of international tension in the 1980's equally to the USSR and the United States, is in circulation among a considerable proportion of the antiwar movement. At the same time, however, part of the antiwar movement, while unable to rid itself of anti-Soviet cliches (persistently imposed by the

mass media also), cannot for all that evade an answer to the main question--whence the threat to peace. Without elucidation of this question the peace movement is threatened by the danger of sooner or later finding itself in the impasse of struggle against an abstract evil. For this reason, for example, the Green-Alternative List in Hamburg (FRG) contains together with the customary recriminations against the Soviet Union the assertion that "the main threat to general peace is the aggressive policy of the United States" (8).

The slogan of a "supra- or extrabloc" antiwar movement promoted by certain antimilitarist organizations is closely connected with the "responsibility of the two superpowers" concept. In proclaiming it they are endeavoring to appear "objective" and "independent," not considering the dangers of a division of the peace movement entailed by such an appeal. Its practical expression is support for a variety of dissidents in the socialist countries in conflict to this extent or the other with the policy of their states.

None of this could fail to impede the breadth and consolidation of the as yet few contacts of the socialist countries and the mass democratic movements. In addition, these relations are frequently interpreted in the West as "Moscow's attempt" to use the democratic movements for its own ends.

The socialist countries are not flirting with the protest movement in accordance with the what's bad for capitalism is good for socialism principle. Their position is of a scrupulous and constructive nature not precluding criticism of this action or the other of the mass democratic movements. Particularly indicative in this plane were several meetings conducted by the leadership of the Soviet Union with representatives of the West German Green Party in Moscow and the response of the CPSU Central Committee general secretary to a letter from Petra Kelly, a leader of the Greens and the antiwar movement in the FRG (9).

The socialist community countries and their governments and parliaments and social organizations are doing much to expand contacts with the mass democratic organizations. The CPSU and the FRG Green Party have agreed to exchange delegations, reports and publications regularly (10). Such relations and explanation of the socialist states' domestic and foreign policy are capable in time of overcoming the prejudiced attitude, based on anti-Soviet clichés at times, of participants in the mass democratic movements toward the socialist countries.

The readiness of the socialist community countries to consent to broad, meaningful and constructive contacts with the mass democratic organizations is evoking an increasingly great response in their ranks. Evidence of this and also a guarantee of a further intensification of cooperation is the sincere and broad support which recent foreign policy initiatives of the USSR has enjoyed among the mass democratic movements. The West German Greens and other West European ecology parties and organizations valued highly the Soviet Union's foreign policy proposals put forward at the 27th CPSU Congress, declaring that the USSR's demand for the renunciation of the militarization of space, a ban on all nuclear testing and "strictly controlled" disarmament "are correct and correspond to the demands of the peace movement" (11).

The Mass Democratic Movements and the Workers Movement in the Capitalist World

The communist and workers movement in the developed capitalist countries is a potential ally of the mass democratic movements, the appearance of which is making new demands on the strategy and tactics of the communist parties and their policy of alliances. The slogans and problems around which the struggle of the movements of nonproletarian protest is concentrated also confront the workers movement and its political vanguard, be it a question of the defense and broadening of democratic rights, environmental protection, the equality of women or the defense of peace.

However, the activists of the new social movements often believe that they are conducting "practical criticism" of the workers movement, which has allegedly lost clarity of purpose and fighting spirit.

Distrust of the mass democratic movements was predominant for a relatively long time in parties of the left also, which were inclined to regard them more as political competitors than allies. The situation was further complicated by the fact that, as D. Fedrigo, member of the Belgian Communist Party Central Committee, put it, "the communists were unable to respond opportunely to certain questions which had arisen in the course of the evolution of capitalist society" (12). A whole series of contacts and joint actions, a period of evaluation of the experience that had been gained and a cool mutual reconsideration of positions which had been adopted earlier were needed in order for "the communists to begin to regard the new social movements as an integral component of the broad democratic alliance of antimonopoly, anti-imperialist forces" (13).

The communists have the strongest positions in the antiwar movement, where they are the most organized and militant part. In Portugal representatives of the Green movement are being elected to parliament per the United People's Alliance list, in which the Communist Party performs the leading role. The Communist Party of the Netherlands joined the Green-Alternative Alliance--one of two main political organizations of the ecology movement. In Sweden the upsurge of the mass democratic movements has contributed to a strengthening of the communists' positions.

At the same time the positive changes in relations between the communists and the mass democratic movements does not yet mean that permanent allied relations have been established between them. Thus despite certain services in the development of the antiwar movement, the German Communist Party was not admitted to the Peace Movement Coordinating Committee in the FRG created by the 26 most popular and influential pacifist organizations. Representatives of the majority of these organizations feared that communists' membership of the Coordinating Committee combined with the anticommunist sentiments prevalent in the FRG population would lead to a decline in the mass nature of the peace movement.

The relatively weak antiwar movement in France is being caused considerable harm by the attempts of the Committee for Nuclear Disarmament in Europe

(CODENE) to reduce the influence therein of the French Communist Party and to coordinate the activity of various pacifist organizations on an anti-Soviet and anticommunist basis.

However, such negative facts are not stopping the communists, and their interest in allied relations is built on a scrupulous basis and dictated by an understanding that "the mass nature of the new social movements and the active participation therein of the masses themselves capable of imparting to an alliance with these movements a profound, fundamental nature will make it possible to achieve the allied relations' independence of fluctuations of political conditions and narrow party and hegemonist goals, which are manifested frequently in the behavior of reformist and bourgeois political organizations consenting to cooperation with the communists" (14).

While not emphasizing attention to ideological disagreements and advocating complete equality and the preservation of the organizational and ideological-political independence of these movements, the communists are participating in their activity increasingly assertively. The communist parties proceed from the fact that the consolidation of the monopoly forces demands closer interaction between the worker and general democratic movements. The foundations for a growing community of long-term goals could also be laid in the process of struggle for joint demands. Only such an approach could lead to the merger ultimately of individual sections of the working people's struggle for their socioeconomic and political rights in a common front of struggle against the domination of the monopolies.

The social democrats also are displaying an interest in a rapprochement with the mass democratic movements. This is connected not least with the fact that in a number of states they are hoping in the very near future for government office. Center parties which were previously the political allies of social democracy have moved noticeably to the right and are more often than not consenting to a government alliance with bourgeois parties of the right. For this reason the search for some form of cooperation with the mass democratic movements is suffused for social democracy with real political meaning. In addition, the leadership of the social democratic and socialist parties cannot ignore the influence being exerted by the mass democratic movements on the rank and file of their organizations and also the extensive spread in society and also among their potential electorate of ecological and antibureaucratic values. The upsurge of these movements and the appearance of their representatives on the political scene have led to a certain movement to the left of a number of socialist and social democratic parties, of the Labor Party in Britain and the SPD in the FRG, for example.

The mass democratic movements' extensive penetration of the sphere of party-political struggle is complicating the functioning of the political institutions which evolved without their participation and introducing new elements to the political culture of bourgeois society. The growth of their influence is making it possible to pose the question of the appearance of a new distinctive political culture, which is influencing people's political goals, values and consciousness increasingly perceptibly and contributing to the appearance of new, original forms of sociopolitical practice.

The evolution of contemporary capitalist society makes it possible to assume that the mass democratic movements have broad prospects of political and social development. It would appear to be a correct assertion that "the depth of the influence of the democratic movements on the mass consciousness is a factor of their 'permanence' and their practically constant presence on the contemporary political scene of the developed capitalist countries. The temporary decline of some is accompanied by the stimulation and upsurge of others, and the 'energy' of the mass movements is not disappearing but being transformed and modified" (15).

A determining feature in the evolution of the mass democratic movements are their relations with parties of the left. Activists of the mass democratic movements, being persons mainly from the new middle strata, are not yet fully aware how unacceptable are their demands for a limitation of consumption to the workers and lower strata of society, which are displaying slight interest and at times sharp hostility even in respect of such appeals. Furthermore, lacking a clear-cut ideological doctrine, these movements could be integrated in the political system of contemporary capitalism, which, as a result, would become more flexible and would possess new opportunities for controlling social processes in the interests of the ruling class.

The mass democratic movements have not yet become a dependable component of the antimonopoly struggle, and there is a large number of contentious problems in their relations with the left spectrum of political forces also. Their theoretical and practical quest is undoubtedly proceeding along the path of formulation of a democratic alternative to state-monopoly capitalism, but the extremely utopian doctrines and remoteness from the workers movement are rendering its end results as yet uncertain.

Despite the constant endeavor to prove their independence and "fence themselves off" from the sphere of party-political rivalry, these movements have already become a notable element of the political system influencing the correlation of social and political forces. Increasingly new representatives of various nonproletarian strata of capitalist society are being enlisted in public-political activity in line with the growth of the assertiveness and influence of the mass democratic movements and the expansion of the range of important problems which they are raising. The social forces which are potential allies of the working class are thereby becoming more representative and imposing. "Granted the existence of objective prerequisites for an alliance between the mass nonparty movements and organizations of the working class (the considerable community of social base and many demands), such an alliance cannot take shape automatically. Various political forces are conducting a stubborn struggle for the thrust and orientation of the civic movements" (16).

The outcome of this struggle is all the more important if it is considered that the general upsurge of political assertiveness in the capitalist countries is fostering the power and influence not only of progressive but also avowedly ultraright trends. The success of the neofascist National Front at the parliamentary elections in March 1986 in France, the attempts to

achieve the even greater consolidation of ultraright organizations on a European scale and many other so dangerous phenomena testify to the existence in the ruling class of potential for a further "drift" to the right.

Rapprochement between the mass democratic movements and organizations of the working class could be not only a difficult barrier in the way of a strengthening of reaction but also contribute most decisively to the development of the antimonopoly struggle and the promotion of a practicable alternative to state-monopoly practices accommodating the manifold aspirations and hopes of the masses.

The Mass Democratic Movements and the Developing Countries

The developing world has recently found itself increasingly often at the center of the attention of world public opinion. This has been connected with the exacerbation of regional conflicts, the unprecedented growth of the developing countries' debt and the further widening of the gulf between them and the developed capitalist states.

Imperialism's aggressiveness in respect of the developing countries intensified on the eve and at the outset of the 1980's, which engendered political instability and the kindling of internal, local conflicts. Simultaneously the former metropolises are resorting everywhere possible to more subtle, flexible methods of neocolonial policy, endeavoring to tie the former colonies firmly to themselves and taking advantage of their economic and technological backwardness. "By way of political maneuvering, promises and bribery, military threats and blackmail and frequently direct interference in the emergent states' internal affairs also," the CPSU Central Committee emphasized in the Political Report to the 27th party congress, "capitalism has largely succeeded in salvaging the relations of economic dependence which had taken shape earlier. On this basis imperialism has been able to create and fine tune a most refined system of neocolonial exploitation and tie a considerable number of emergent states more closely to itself."

The mass democratic movements, like other progressive forces of the world, are following with great interest what is going on in the developing countries and sympathize profoundly with their struggle for economic, political and cultural independence. Such close and concerned attention is far from fortuitous. Having imbibed the tradition of the heightened interest of the "new left" of the end of the 1960's in problems of the developing world, the mass democratic movements formulated their own attitude toward it. For the "new left" the third world was the touchstone against which they tested the seriousness and feasibility of their radical, but utopian concepts of the "destabilization of late capitalism".

For the contemporary democratic protest movements the third world is not so much the hope and example in the struggle for a just future as a vast region of the planet in need of urgent assistance and protection. In the opinion of the "new left," the destiny of the third world was saving the developed world from the dangers of modern civilization. The democratic movements of the

1970's-1980's have seen as their task cautioning the developing states against the dangers and impasses which await them on the path of capitalist development.

The economic, political and military activity of the developed Western countries and transnational corporations in the third world pursuing the goals of extracting the maximum profits and keeping the developing states in the sphere of the capitalist system of exploitation is giving rise to sharp and justified criticism on the part of activists of the mass democratic movements. "In introducing our lifestyle to these states," the West German Greens emphasize in their program, "we are destroying their culture in realizing large-scale industrial and agricultural projects and upsetting the ecological balance and incipient economic structures. As a consequence the underdeveloped countries' dependence on the industrial states is growing increasingly. The reason for this development is mainly the interest in obtaining maximum profits" (17).

The position of the ecologists and representatives of other democratic movements in respect of the developing countries is based not only on an objective assessment of existing realities. It is also explained by the attitude of the participants in the movements toward problems of the "developing world," an attitude which is emotionally rich and full of sincere empathy. They are profoundly convinced that assistance to the development of this region of the planet is a moral duty and the rightful obligation of the peoples of the former metropolises and also other developed capitalist countries, even those which did not have colonies but which derive considerable benefits from the contemporary world capitalist division of labor. "The high living standard in Sweden," the program of Sweden's Ecology Party observes, "is based to a considerable extent on the exploitation of poor countries exercised, specifically, with the aid of unfair international trade" (18).

Representatives of the mass democratic movements of various capitalist states agree that until a new world economic order taking fully into consideration the interests of the developing countries is established, the objective prerequisites for tension in international relations and for bloody regional conflicts will be preserved. "We believe that long-term security may be achieved only by the just distribution of world resources" (19), Great Britain's ecologists conclude.

The democratic protest in the developed capitalist countries, which is aimed in principle against the political, economic and military structures which exist in the West and which is endeavoring in every possible way to preserve its independence from whosoever at all, links its main hopes in the third world with the development there of mass popular movements, both in some respects similar to them and specifically their own (the movement for a new world economic order developing both at the international and national levels, for example). "Assistance to movements fighting for social and national liberation must continue" (20), Sweden's Greens emphatically declare.

In the opinion of theorists of the mass democratic movements, the fatal dual dependence of the developing countries, first, on the industrial nations and,

second, on their national political elites could be broken by way of the development and strengthening of progressive forces in the third world. "The decisive obstacle in the way of their (the developing countries--V.S., A.T.) liberation and independence is the political power of the national elites connected by their interests with the industrial countries. Therefore the strengthening and support of the base and liberation movements in the third world is a far more valuable contribution than any development assistance rendered from the best of motives" (21), the West German ecologists explain in their 1983 election program.

Solidarity with the peoples struggling against reactionary regimes in their countries is an important feature of the ideology and policy of the Greens of various countries. "We advocate," the FRG Green Party program emphasizes, "peaceful support for the uprising of the peoples against regimes openly and systematically employing violence"; "no economic, military, military-engineering or secret cooperation with fascist and racist regimes" (22).

The interest of the mass democratic movements in third world problems is of an active nature. They are not confining themselves to adopting program documents and declaring solidarity with the struggling peoples. Their activity extends from financial assistance and the gathering in of the harvest in this country or the other to political struggle for a fundamental change in the principles of Western states' policy in respect of "poor" countries. In the FRG alone there are currently approximately 4,000 various volunteer initiative groups engaged in rendering the third world practical assistance. Hundreds of committees and associations are at work in France, the United States and other capitalist states rendering the Central American peoples concrete support (23).

It goes without saying that even the most active protest organized by the mass democratic movements (frequently in conjunction with the parties of the working class) against the imperialist states' neocolonial policy is not as yet in a position to put a stop to the plunder of the developing countries and achieve just economic relations between the former metropolises and the emergent countries. Nonetheless, this protest is an integral part of the struggle of the progressive forces for the genuine equality of all countries; participating therein, people living in "successful" states are beginning to understand more clearly the goals, tasks and meaning of the national liberation movement.

The combination of independence and originality and fidelity to their ideals and values with participation in the political struggle and an evaluation of the possibility and permissibility of the compromises, alliances, methods of mobilization of the masses and organizational principles which this participation presupposes is today for the mass democratic movements becoming an increasingly acute problem insistently demanding solution.

The mass democratic movements are gradually approaching the point of maturity where the organizational amorphousness and theoretical variegation which for some time gave them certain advantages compared with the political parties are beginning to undermine their foundations and hold back further development. In raising the question of the movements' political identification and the

formulation of more precise forms of organization their ideologists are at the same time expressing fears that parliamentary illusions are increasing in them, that a leading hierarchy is appearing and that, finally, they are losing the original features which attract people to them. A solution of these complex problems has not yet been found. Nonetheless, the noticeable turn to the left in the positions of many mass democratic movements, their political and social "growing up," the more balanced and constructive attitude toward the possibilities of an alliance with the workers parties and union organizations and the successful, albeit few as yet, attempts to go beyond a national framework in the solution of the global problems confronting them, as all mankind, indicate a positive focus of the quest corresponding to the requirements of the broadest masses.

The difficult problems which have confronted the main driving forces of social progress in connection with the appearance on the political scene of the mass democratic movements may be solved successfully on the paths of a search for common interests, points of contact in the struggle and real joint actions. Curbing the arms race, listening to the realistic peace initiatives of the USSR and the other socialist countries, converting military industry to peaceful production, ceasing military interference and arms exports to the third world--such is a far from complete list of the demands in the principal sphere, the sphere of the struggle for peace, in which the interests and actions of the mass democratic movements and other driving forces of social transformations are most closely interwoven.

FOOTNOTES

1. See "La jeunesse dans les annees 80," Paris, 1981.
2. See *ibid.*, p 125.
3. C. Mast, "Aufbruch ins Paradies? Die Alternativbewegung and ihre Fragen an die Gesellschaft," Zurich, 1980, p 46.
4. KOMMUNIST No 5, 1984, p 108.
5. See "Linksradicalismus in den 80 er Jahren," Berlin, 1984, p 89.
6. AUS POLITIK UND ZEITGESCHICHTE, 9 October 1985, p 18.
7. W. Hollstein, "Die Gegengesellschaft: Alternative Lebensformen," Bonn, 1980, p 150.
8. See "GAL--Programm fuer Hamburg," Hamburg, 1982, p 6.
9. See PRAVDA, 30 May 1984.
10. See GUTEN TAG No 9, 1986, p 39.
11. See MARXISTISCHE BLAETTER NO 3, 1986, p 80.
12. PROBLEMY MIRA I SOTSIALIZMA No 2, 1986, p 72.

13. "The International Workers Movement. Questions of History and Theory," Moscow, 1985, vol 8, p 567.
14. Ibid., p 569.
15. "Present-Day Capitalism: Political Relations and Institutions of Power," Moscow, 1984, p 117.
16. Ibid., p 132.
17. "Die Gruenen. Das Bundesprogramm," Bonn, 1980, p 17.
18. "Miljopartiet: Program antaget, vid motes avslutning. Six December 1981 i Uppsala och kompletterad vid miljopartiets forsta Kongress i Sundsvall pasken 1982," Stockholm, 1982, p 3.
19. NEW SOCIETY, 17 September 1981, p 463.
20. "Miljopartiet...", p 3.
21. "Sinnvoll arbeiten-solidarisch leben Gegen Arbeitslosigkeit und Sozialabbau," Cologne, 1983, p 10.
22. "Die Gruenen...", pp 20-21.
23. See PROBLEMY MIRA I SOTSIALIZMA No 2, 1986, pp 89-92.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

EXPERIENCE OF U.S. COMPANIES IN PRICING, QUALITY CONTROL

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 18-27

[Article by S. Nikitin and Ye. Glazova: "Price and Quality of Output: American Companies' Experience"]

[Text] A fundamental improvement in product quality was advanced by the 27th CPSU Congress as a most important economic task. Prices, to which it is essential to impart greater flexibility and whose level must be linked not only with input but also the consumer values of the commodities, social requirements and public demand, are designed to be an active instrument in its accomplishment. The significance of this question was emphasized once again at the CPSU Central Committee June (1986) Plenum.

Study of foreign experience of the consideration of product quality and pricing is of undoubted interest in this connection. This article analyzes such experience of American companies.

Certain Questions of Price Theory and a Commodity's Use Value

Before directly addressing the experience of pricing in the United States, it is necessary to dwell briefly on certain theoretical problems.

We would recall that the supporters of the so-called expenditure method of pricing frequently defend it by references to the Marxist theory of labor value. Insofar as, in accordance with this theory, labor is the sole source of value, to that extent, they claimed, the price of commodities should be determined solely by expenditure on their production. Consideration, however, in price of use value would appear in the light of this logic virtually a denial of the labor theory of value.

In our view, such ideas are invalid and contrary to key propositions of Marxist economic theory, which regards price as a multifactor phenomenon and proceeds from the fact that product quality performs a considerable role in its formation. K. Marx observed that price is established for a commodity of certain consumer properties and that a modification of these properties causes a change therein. "Since a commodity is purchased by customers... because it is a 'use value' and is used for certain ends, it goes without saying that: 1)

the use values are 'valued,' that is, their quality is studied (just as their quantity is measured, weighed and so forth) and 2) when different sorts of commodities may substitute for one another for the same consumption purposes, this sort or the other is given preference and so on and so forth" (1).

As far as value is concerned, the source thereof, in accordance with Marxist economic theory, is only labor. But this does not deny the impact on the value of the price of various factors but merely creates a base for solution of the problem concerning the source of its corresponding changes. Thus the factor of intersectoral competition and the transfer of capital leads to the formation of production prices based on a redistribution of labor value between sectors with a diverse organic composition of capital. K. Marx also showed that a price formed as a result of a natural monopoly (rarity of some varieties of wines or unique works of art, for example), although dictated by the correlation of supply and demand, is based on the redistribution of the value of other commodities.

Accordingly, the connection of the price of a commodity with its quality, primarily a higher price for a better-quality product, is by analogy with the examples adduced above also based on certain processes in the sphere of labor value; and these processes, furthermore, are of a diverse nature depending on the factors which brought about the divergence in the quality of the commodities.

First, the higher quality of one commodity compared with another may be caused either by a greater input of labor (live and past) or the application of more intricate (that is, higher-quality or more skilled) labor. In such cases the differences in the quality of the commodities conceal differences in their value, which is reflected in the prices.

Second, differences in the quality of homogeneous or roughly homogeneous products could be determined by natural or geographical factors (the most frequent instance being in agriculture or extractive industry). Under these conditions, given equality of supply and demand, the individual value of a better-quality product proves higher because of differential rent inasmuch as its objective basis is the possibility, given identical input of past and live labor, of obtaining not only a greater quantity of the homogeneous product but a better-quality homogenous product.

Third, better quality may be caused by technical progress (more consummate equipment and subjects of labor). Inasmuch as the use of such means of production leads to a lowering of costs for the entrepreneurs who acquire them, the latter pass on to the producers of the means of production in the form of payment at a higher price part of the excess surplus value obtained thanks to the use of the latter.

In addition, instances may be encountered of an increase in prices of better-quality goods not having been brought about by their higher value but being the result of consideration of higher demand for the said commodities. If the corresponding excess of demand over supply is of a stable nature, it brings about a significant and permanent excess of price over value covered thanks to a redistribution of the value of other commodities.

In reality all possible connections of use value and cost are encountered in an intricate interweave.

Consequently, consideration of the quality of commodities in their price organically ensues from Marxist economic theory, including the theory of labor value also.

Quality of Commodities in Companies' Pricing Policy

Let us examine the most important directions of the reflection of the quality of commodities in American companies' pricing policy.

Among the main factors which a company endeavors to consider when determining prices are primarily those which are connected with the particular features of the sector and the sectoral positions of the firm (degree of concentration of dealers and customers, share of the market controlled by the firm, positions of competitors), the specifications of the product and its position on the market (its utility, prestige, phase of life cycle, connection with models of the entire product series, availability of substitutes), the firm's market policy (market goals, sales channels, positions in the advertising sphere and so forth), with production costs (costs in the past and future, anticipated equipment load norm, distribution of overhead and so forth) and others. It has to be noted here that, according to American economists, production costs assume the greatest significance not so much when settling the question of the price level of a specific commodity as when analyzing the economic activity of the company as a whole, predetermining the profitability and thereby its expediency.

In view of the multitude of factors influencing pricing processes, its methods employed by the major companies and their pricing policy in general operate by no means mechanically. Prices are determined not in accordance with rigid outlines but by incorporating considerable elements of maneuvering. Endeavoring to take into consideration all the manifold price-forming factors, the major companies on the one hand attempt to influence the market situation actively and, on the other, to adapt constantly to its changes (and the combination of these two components of pricing policy--active and passive--what is more, changes continuously depending on the conditions taking shape on the market).

As a rule, prices are determined for products with actual specifications. Individual properties of the manufactured product are considered most fully upon determination of the contract or single prices, which are employed at the time of its realization in the form of direct supplies to the consumer firm. They encompass the bulk of the sale of industrial equipment and are realized either on the basis of contracts and individual orders or by way of episodic deeds of sale of both standard products and those taking into consideration clients' individual demands. The contract or single prices usually stipulate in advance all the technical parameters and specifications of the products, their sale terms and so forth. However, inasmuch as these prices are frequently determined prior to the start of production and cannot take into consideration all future possible changes in production conditions and the

market situation, they are sometimes adjusted appreciably by the time of payment for the finished product. It is essential to take this into consideration when analyzing pricing practice.

Goods intended for mass or anonymous consumption prices are fixed in periodically published price lists. In the major corporations they include a large quantity of types, forms and grades of products. At the same time these prices represent merely the basis when calculating the price of a specific commodity and for this reason presuppose a developed system of open and hidden discounts and surcharges for a change in quality, supply conditions and consignment size, packaging and labeling and so forth. This system affords the major companies an opportunity to adapt better and more promptly to the changing conditions of competition. It makes it possible, without altering the announced prices, to raise or lower them in practice depending on the market situation, temporarily avoiding undesirable publicity for the company.

Among the various aspects of price-forming, questions of the determination of prices with regard for quality and the correlation of goods' prices and consumer properties are of the greatest interest for the purposes of our study. This is connected with the fact that under the conditions of rapid S&T progress in all sectors of the economy there is a considerable increase in the intensity of the replacement of manufactured products (2), the upgrading thereof and an expansion of their spheres of application. Fundamental transformations are occurring in production equipment and technology. The speed of these processes is particularly high in the newest sectors. For example, in just 10 years, that is, since the moment of its appearance on the market in 1971 through 1981, the microprocessor has undergone such essential changes and such improvement that the 1981 product is radically different from the version of the start of the 1970's. Under these conditions the correct choice of price predetermines to a considerable extent the viability and commercial success of manufactured products, and this is extraordinarily important from the viewpoint of the functioning of the firm itself and its interest in a qualitative upgrading of the products and the use of innovations. It has to be considered here that the changes born of S&T progress both in the sphere of production and in the sphere of consumption are reflected variously in products' prices. On the one hand there are changes under the influence of S&T progress in the consumer properties of the end product, and inasmuch as price is determined for a commodity of certain consumer properties, changes therein bring about changes in price also. On the other, the conditions of production themselves--the quantity and quality of source materials, applied technology, engineering processes and the value and price of the producer goods--are becoming different as a result of the development of science and technology also. All this influences the magnitude of expenditure and is correspondingly reflected in the level and dynamics of prices.

From the viewpoint of consideration of the consumer properties of commodities in prices it is expedient to examine three types of products:

products representing a modification of existing commodities and an upgraded, improved version thereof;

products with certain analogues among existing commodities either in terms of type of requirements met or in terms of methods of operation;

fundamentally new products.

Questions of choice of a firm's pricing policy, the methods of formation of the price and its initial base are decided variously depending on the category to which the product pertains.

When determining the price of an upgraded product (enriched raw material, different brands of steel, relatively homogenous implements of labor and many consumer goods), the price and quality specifications of the initial commodity are taken as the basis; correspondingly, any improvement in consumer properties is reflected in the price via a system of additional payments and surcharges. The magnitude thereof is differentiated depending on the extent to which the actual specifications of this product or the other deviate from the base specifications, the value of the savings given use of the modified product and the scale of additional expenditure for the producer. In order to interest the consumer here in the use of the new improved product the sum total of the additional payments does not, as a rule, exceed the additional savings secured thanks to the improved quality. For example, the price and quality of carbon and alloy steel are taken as the base in the United States' metallurgical industry. Various further payments are applied when calculating the price of metal products distinguished from the base price in terms of this indicator or the other: for the methods of smelting the steel, for example, and its chemical composition and physical properties; supply of metal products of certain dimensions and shape; for all types of supplementary treatment; a reduction in the weight allowances of the consignment supplied; further payments depending on packaging; and so forth.

Discounts are applied in a number of cases, if the manufactured commodities do not correspond to the quality specifications of the standard, for example. Reduced prices are also established in resale transactions involving pre-used products. The difference in the prices of the new and second-hand products here reflects mainly the degree of their novelty and engineering level and takes into consideration depreciation and obsolescence.

Model age	1967 model price (\$)	
	Chevrolet	Ford
1	1,575	1,600
2	1,420	1,440
3	1,205	1,210
4	1,000	1,000
5	820	825
6	710	700

Source: "Price Indexes and Quality Change: Studies in New Methods of Measurement". Ed Z. Griliches, Cambridge, 1971, p 249.

A different price-forming procedure is possible also. For example, in the auto industry it frequently begins with an ascertainment of what the consumer would like to see in his car and how much he will pay to have it. Price-

forming and development in this case are performed simultaneously. In the process of putting the finishing touches to the model the specifications least attractive from the consumption viewpoint are excluded from it as a result of a comparison of the proposed price and production costs.

The correlation of prices of modified products frequently constituting a certain product series reflects to a considerable extent the correlation of the consumer properties of different varieties of the commodity. Therefore given the absence of sufficiently full and thorough information on the quality of the products, which is typical of the consumer goods market, it is prices which are regarded by the customer as symbols of a certain product quality. The surcharges in the price for a more consummate product here, and the results of certain Western studies confirm this (3), not only exceed the producer's additional outlays in respect of ensuring quality but also depend on the knowledgeability of the customer. The less information he has, the higher the surcharges could be.

The possibilities not only of an improvement in the quality and an increase in the volume of the manufactured product but also of its interchangeability are expanding considerably as a result of S&T progress. Price formation in this case has essential distinctive features. These are primarily a more careful consideration of quality and the degree of interchangeability. And the technical and economic aspects should be borne in mind here, what is more: the distinction between the physical possibility of the use of some commodities instead of others and the influence of prices, the production volume and the operating costs of consumers given use of the "alternative" products. The dynamics and correlation of the prices of various energy carriers may serve as a characteristic example of the influence of consumer properties on the prices of interchangeable products. The properties of oil contributed to a considerable extent to the rapid growth of its consumption and the reduction in the relative significance of other energy carriers and ultimately led to it being the price of oil which is currently determining for all energy carriers. Another example: as new construction materials, plastics, for example, improve, there is an increase in interchangeability and a rapprochement of the price levels of various types thereof.

An important influence on price formation in this case is exerted by the actual struggle on the part of the substitute commodities, which is particularly acute, when the latter only just begin to appear on the market.

The biggest difficulties arise at the time of adopting decisions on prices of fundamentally new products. The reason is not only the considerable uncertainty of prospects but also the insufficient information concerning the nature of the change in demand, costs and such.

Price-Forming Methods

Two methods of forming the prices of new products--the determination of relatively high ("skimming prices") and relatively low prices ("penetration prices" or "breakthrough prices")--are the most widespread. What conditions predetermine the choice of this price-forming method or the other?

This depends on a combination of many factors. The main ones among them are:

the specifications of the commodity, that is, the degree of novelty, relative exclusiveness compared with other commodities, purpose (satisfaction of traditional or fundamentally new requirements) and so forth;

conditions of competition--the existence of patent protection or complex classified production engineering processes; the existence or threatened appearance of substitute commodities; anticipated duration of the new product's domination on the market;

market conditions and sales conditions--elasticity of demand in terms of price, range of consumers and so forth;

production costs and value of anticipated profits;

other factors concerning the firm's activity on the market (its financial status, for example, list of manufactured products and so forth).

The producer establishes high prices for new products, as a rule, when it possesses some unique properties and performs functions qualitatively different from other commodities. Patent protection or complicated engineering processes are frequently encountered in this case. As a result there is less danger for the firms which initiate the production of competition on the part of other firms and substitute commodities. High prices are also established when, owing to the novelty of the product and insufficient information about it on the part of the consumers, demand is initially inelastic. Prices in this case are oriented toward satisfaction at first of "elite" demand. As it is exhausted, the price declines, and the commodity becomes accessible to the broad consumer. The policy of establishing high prices is also more attractive from the viewpoint of the financial status of the firm inasmuch as it prefers the speedier recoupability of capital investments, which is particularly important under conditions of inflation. In addition, high prices originally, given the favorable nature of the change in production costs, demand and so forth, may be lowered. Raising prices is considerably more difficult.

It was this practice of the establishment of originally high prices which was chosen by the American companies which came onto the calculating equipment market with a fundamentally new computer, which, American scientists believe, is inaugurating a new generation of computers based on artificial intelligence componentry (4). It was specially designed to use a nontraditional computer language (LISP), which makes it possible not only to operate with concepts of formal logic (words, phrases, geometrical figures) but also to accelerate appreciably the programming process itself. This is particularly important inasmuch as the compiling of programs for the operating computers is becoming an increasingly complex, laborious and costly process.

This new type of computer (LM--"LISP-machine") was developed for the first time in MIT, and two companies: LISP Machines Inc and Symbolic Inc, having purchased the appropriate licenses, embarked on its commercial production at the end of the 1970's. The prices of the new computers of both companies, which appeared on the market in 1981, were almost identical--approximately

\$100,000 for the basic version of the machine. This was considerably higher than the price of the best comparable computers already in use. Inasmuch as the product was new, had not won popularity among consumers and the prices thereof were high, sales initially were slack. Only 70 machines approximately had been sold by the end of 1982. However, in 1984, following an adjustment of the companies' market strategy and a lowering of the price, the total number of machines sold or ordered rose to roughly 2,000.

The favorable prospects of production and the growing attractiveness of the novelty for the consumer led to the Xerox and Texas Instruments companies joining in the production in 1983-1984. It is interesting to note that the prototype of the new computer had been developed in the Xerox research center back in the 1970's. However, the corporation's management had deemed its further development inexpedient. When, however, it subsequently resolved to rectify the situation and the consumer was offered a version of the new LM computer, the firm encountered competition from companies which had already captured the market. In order to win part of the market Xerox developed new versions of the machine, including the least expensive, whose price was approximately \$22,000. The cheapest LM models of the other companies cost \$69,000.

Subsequently for the purpose of expanding sales and segmenting the market the companies manufactured a number of models differing in terms of functional possibilities and degree of provision with utility software. At the upper level are the most intricate models intended for the development and testing of new mathematical programs. They are furnished with devices which help automate the programming process, consider numerous details and reveal technical flaws in the programs, logic discrepancies, for example. The prices of these machines are frequently in excess of \$180,000. At the lower level are the simplest models intended for the use of programs which have already been created and not for developing them. They are considerably cheaper. In the very near future Xerox, for example, plans reducing their price to \$5,000-10,000.

"Skimming" policy is employed quite extensively not only on the domestic but also the world market. Thus an acute struggle for technical leadership has developed between American and Japanese firms in such a determining field as the technology of the creation of the latest memory units. Japanese companies aspire here not only to the accelerated technical upgrading of the manufactured products but also to a reduction in price. It took them only 2 years to come onto the market (at the end of 1985) with a new, more accomplished memory component (1 megabyte), whose capacity is almost four times greater than the best of the models (256K) operating currently. The prices of the latter have as a result dropped sharply. In just 1 year they fell from \$25 to \$3.5, and the even earlier version of the memory component (64K capacity) was costing less than \$1. As a consequence of the high quality of the product and the systematic reduction in the prices thereof the share of world sales of this most important electronic component controlled by Japanese companies increased from 53 percent in 1982 to 65 percent in 1984 (5).

The "penetration price" or "breakthrough price" method provides for the establishment for a new product of relatively low prices. In this case the

firm endeavors to capture as broad a market as possible, occupy the predominant positions and, thanks to the scale of sales, to recoup its outlays more quickly and ensure the corresponding profit. In addition, low prices are designed to lessen the attractiveness of the market for other entrepreneurs and thereby reduce potential competition. This pricing policy is chosen, as a rule, when a product does not possess unique properties and specifications or if it does not present great difficulties for imitation and there is therefore a great danger of competitors appearing. A low price is from the very outset oriented toward a broad range of consumers. It presupposes the practicable possibility of mass production and also the firm's sufficiently strong financial position (6).

The price-forming methods in question--determination of high or low prices for new products--are alternative. Success frequently requires the choice not of extreme but compromise solutions. The establishment of differentiated prices for different groups of consumers and market segmentation are a certain variety of the methods in question.

It was this path of increasing specialization and segmentation of the market for the purpose of retaining their positions in the competitive struggle with Japanese firms which was taken by American companies producing electronic componentry. They offered versions of existing memory units (256K) with negligible modifications designed for narrow spheres of use. And although sales of the specialized memory components currently constitute only 5 percent of the market volume, by 1990 their share, according to an American forecast, will have increased to 15-20 percent (7). So-called videomemory may serve as an example of a specialized product created by American companies.

American companies also attempt to use forms of imaginary product differentiation like, for example, new packaging, and not only the producers of traditional products, consumer particularly, but also firms engaged in the production of new products resort to this, furthermore. Thus a block of 4 chips, each of which represents a memory component of 256 kilobytes, while together they constitute some "ersatz" chip of 1 megabyte capacity, has come onto the American market. American companies are only just developing such chips, but Japanese firms have already begun manufacturing them.

An appreciable increase in the costs of programs of a rise in the quality of products and the production of new types thereof has been noticed in recent years as a whole, which is manifested in the rapid increase in the cost of R&D and the increase in commercial costs connected with the market adaptation of novelties. The increased intensity of the updating of manufactured products is frequently accompanied by an abridgment of new commodities' life cycle. The length of time in the course of which a firm has monopoly possession of information concerning its novelties is being reduced. The results of a poll of 100 American companies of 13 most important industrial sectors conducted by the American expert E. Mansfield showed that companies' decisions concerning the prospective directions of the development of their production become known to competitors within 12-28 months on average, and information concerning the nature and methods of the production of a new product or the assimilation of a new production process passes beyond the confines of a company within a year of their development (8). If it is considered that the assimilation and start

of the commercial use of a new product or process takes approximately 3 and more years in many sectors, this means that the majority of innovations becomes known to competitors long before their appearance on the market.

All this predetermines to a considerable extent the large number of imitations and copies which in the wake of the novelty shortly after appear on the market. Approximately 60 percent of patented innovations is reproduced by competitors within the following 4 years. Of course, the production of products imitating a novelty also requires considerable resources and time. However, this is appreciably less expensive than developing a novelty oneself. For this reason imitations and copies have become a very widespread phenomenon. Of the 38 American, British and Japanese companies which were the main producers of microprocessors in the period 1971-1981, only 22 had even one product which they had developed themselves, including 6 firms which had manufactured from 5 to 12 original microprocessors in this time. With the rare exception these companies successfully supplemented their own developments by copying the products of other producers. The remaining 16 companies confined themselves merely to imitation, not involving themselves in their own developments. Some 203 different microprocessors were released onto the market altogether in this time, of which 69 had original designs, while 134, that is, almost two-thirds, were very close analogies to the products developed by the leader-companies, as a rule (9).

It is important to note in analyzing questions of the correlation of quality and prices that the latter are by no means a passive element in this interconnection. They may both stimulate and impede qualitative changes, that is, exert on them a reverse influence, and it may be quite significant, what is more. Thus the endeavor of the major companies to raise prices and thereby increase their profits stimulates their quest for new models of improved quality inasmuch as a growth of prices effected in connection with an increase in quality (and sometimes merely on the pretense of such) usually exceeds considerably compensation for increased production costs. The major companies aspire to an increase in quality even given the impossibility of price maneuvering, particularly under conditions of acute competitive struggle, since an improvement in quality at the former price is the equivalent from the viewpoint of the consumer of a reduction in the cost of the product. Therefore in periods of intensified producer competition the quality level of manufactured goods usually increases. And, conversely, given steadily high prices, firms lose interest in use of the achievements of S&T progress, which is an impediment in the way of product improvement.

However, such periods are rarely lengthy inasmuch as high prices create prerequisites for new producers' penetration of the sector, which could lead to increased price or nonprice competition on the market and, as a rule, is connected with use of the achievements of S&T progress and stimulates an increase in quality.

Thus in the short term an improvement in product quality corresponding to the consumer's demands is accompanied by a certain rise in prices. Changes in the level of quality are fixed here either by way of the establishment of a new list price or via a system of additions to the price of the product of the base quality level. It is quality distinctions which mainly determine the

correlation of prices of products of the same type. At the same time with the increase in a commodity's quality there is frequently a decline in its consumption costs, that is, expenditure on the operation of a product or the processing of material, and an improvement in engineering indicators, which contributes to labor productivity growth. An increase in quality is frequently the equivalent of additional production volume, that is, with an increase in quality there is a savings of social labor input. If the prices of new (upgraded) products are seen from the long-term angle, they show a tendency, as a rule, to decline (if not absolutely, at least in relation to the overall price level).

An analysis of actual data confirms that prices of products of new and the newest sectors are growing more slowly than in industry on average, and for certain types, semiconductors, for example, are declining constantly. Thus in the 10 years from 1974 through 1984 they declined in the United States over fourfold (given a growth for machinery and equipment on average by a factor of 2.1) (10). And although price dynamics are determined by the impact of a whole sum of factors, the role of economies in costs creating the prerequisites for a reduction thereof in the progressive sectors is not in doubt. As the production of new products is assimilated, the production processes and equipment used are perfected, the skills and expertise of the personnel accumulate and productivity grows. For example, the cost of the assembly per unit product in the production of semiconductors at American enterprises had at the start of the 1980's declined fourfold thanks to automation. Manual labor input declined appreciably. As a result the proportion of expenditure on pay in the composition of costs diminished from 45.1 percent in 1958 to 29 percent in 1981 (11).

It is also essential in analyzing price dynamics to consider that new commodities designed to replace those which existed on the market previously possess, as a rule, better consumer properties, which increases the efficiency of their use considerably. For example, use of the microprocessor (the Intel 8601) which appeared on the market in the mid-1980's makes it possible to reduce by a factor of 6-7 the costs of the system of monitoring people-free production processes. The cost of such systems based on this microprocessor is put at \$500 compared with the \$3,000-3,500 for a comparable system not employing the novelty (12).

Therefore even given a higher absolute price level per unit of consumer property, a new product reduces costs, as a rule. For example, the cost of the production of different generations of memory differing, inter alia, in the extent of their memory per unit of capacity fell from 4 cents at the start of the 1970's for the first models of such devices with a capacity of 1K to less than 2 cents in 1983, given the production of the more accomplished fourth version of memory units with a capacity of 64K (13). All this permits the belief that the development of the progressive sectors as a result of S&T progress and the spread of their influence to other sectors is a factor of a slowing of the growth or a reduction in the overall level of prices of finished products.

FOOTNOTES

1. K. Marx and F. Engels, "Works," vol 10, p 387.
2. Innovations are becoming not only an essential condition of conducting successful competitive struggle but also a most important direction of an increase in companies' profitability. According to the calculations of American economists, in the 5-year period from 1982 through 1987 alone a doubling of the quantity of novelties is anticipated, and the share of profits obtained by companies thanks to new products will increase in the same period 40 percent (JOURNAL OF FORECASTING, April-June 1984, p 121).
3. THE REVIEW OF ECONOMIC STUDIES, October 1983, pp 647-658.
4. See FORTUNE, October 1984, pp 65-71.
5. DUN'S BUSINESS MONTH, July 1985, p 38.
6. See HARVARD BUSINESS REVIEW, November-December 1976, P 149.
7. DUN'S BUSINESS MONTH, July 1985, p 39.
8. Chemical processes, which it is often possible to keep secret for a number of years, constitute the exception mainly (see THE JOURNAL OF INDUSTRIAL ECONOMICS, December 1985, pp 217-223).
9. THE JOURNAL OF INDUSTRIAL ECONOMICS, September 1985, pp 33-50.
10. "1986 U.S. Industrial Outlook," Washington, 1986, pp 32-2 (sic); "THE HANDBOOK OF BASIC ECONOMIC STATISTICS, September 1986, p 131.
11. "Transnational Corporations in the International Semiconductor Industry," New York, 1986, pp 99, 103.
12. RESEARCH AND DEVELOPMENT, February 1985, pp 114-116.
13. "Transnational Corporations....," p 118.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

WESTERN EUROPE ON SDI

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 41-48

[Article by G. Vorontsov: "West Europe and the SDI"]

[Text] The progressive development of space research and technology is expanding the possibilities for the conquest of space, including its use for military purposes. It is with good reason that the problem of the nonmilitarization of outer space has moved to the forefront of international debate on military-political issues.

The course of events has now led to the decisive line by overstepping which space may be made an arena of an unchecked and extraordinarily dangerous development of events and a fundamentally new and exceptionally dangerous destabilizing factor capable of radically changing the strategic situation introduced to the intricate balance of armed forces and arms. Under these conditions truly general significance is attached to this solution or the other or lack of a solution of the problem of the nonmilitarization of outer space. No less important also is the fact that the militarization of space is capable of stimulating increasingly new twists of the arms race spiral in other spheres. On the other hand, solution of the problem of the nonmilitarization of space could lead to considerable improvements in the sphere of disarmament, nuclear primarily.

This was manifested particularly graphically in the course of the meeting between M.S. Gorbachev, general secretary of the CPSU Central Committee, and U.S. President R. Reagan in Reykjavik. Never before in the history of Soviet-American relations had the USSR put forward such radical arms reduction proposals. Far-reaching and interconnected, they constitute a package based on the program for the elimination of nuclear weapons by the year 2000 announced in the 15 January 1986 statement of the general secretary of the CPSU Central Committee.

As is known, there was a promising rapprochement of positions in a number of areas thanks to the efforts of the Soviet side as a result of difficult struggle and sharp disputes. Considerable reductions in and the subsequent elimination of strategic offensive arms were agreed. An understanding was also reached on the complete elimination of American and Soviet medium-range

missiles in Europe and a radical reduction in this class of missiles in Asia. The main obstacle in the way of the fruitful completion of the meeting was the United States' position on the question of the SDI, owing to which a unique opportunity--to deliver mankind from the nuclear threat--was let slip. "We see the main danger of SDI," M.S. Gorbachev pointed out in a speech on Soviet television on 22 October 1986, "precisely in the transfer of the arms race to a new sphere and an endeavor to break out with offensive weapons into space and thus achieve military superiority."

Together with the well-known principal function of the SDI--the creation of preponderant military-strategic positions for the United States--there are other dimensions of the program also. They proceed from the domestic policy considerations of circles of American imperialism which exert a decisive influence on the administration's activity. At the same time they also reflect specific features of the international situation. The aspects of the "star wars" program which are concentrated in the channel of Washington's relations with its NATO allies are of considerable interest.

I

The intricate complex of interaction and contradictions between the United States and its allies along the entire spectrum of issues connected with the SDI has in recent years occupied an important place in the sphere of Atlantic relations. Not only this aspect or the other of the SDI program itself but also a whole number of problems of a strategic, political, economic and technological nature have come to the fore in the course of the wide-ranging discussion of the "star wars" concept. "It is difficult to imagine a more alienating issue for NATO," the prominent American expert G. Smith once declared in the course of hearings in the Senate Foreign Relations Committee (1).

Washington's noticeable stimulation of efforts to tie its allies in this form or the other to realization of the "star wars" program pursues a number of goals. From the military-political viewpoint the United States, pushing forward its initiative and tempting the West Europeans with its strategic and technological benefits, is oriented toward the more effective realization of a traditional goal: "uniting the West" in the face of the USSR and its allies under its aegis. It was with good reason that in the well-known speech (March 1983) President R. Reagan pointed to the need to build a "space shield" which would be capable of "intercepting and destroying strategic ballistic missiles before they reach" not only "our own territory" but also "the territory of our allies" (2).

The cohesion of the "Atlantic community" on the basis of the SDI would undoubtedly be of political importance for Washington and would have an undoubted propaganda effect. It would make it possible to impart respectability in the eyes of world public opinion to the odious plans for the militarization of space, which are openly condemned by the majority of the population of our planet. The international community's attitude toward this question may be judged from the results of the voting of recent UN General

Assembly sessions. Thus at the 41st Session a resolution on preventing an arms race in outer space won the approval of an absolute majority. Only the United States refused to support it.

Considerable significance is also attached to the incorporation of additional forces and resources capable of alleviating Washington's material burden. It is clearly counting on pumping technology and intellectual potential from the West European states. The allies' participation in American developments, Washington strategists intend, should strengthen their attachment to the United States, mainly in the form of one-sided dependence. It, in turn, is capable of being converted into a strengthening of the United States' political leadership. The development of far-reaching processes in spheres highly sensitive for the West European countries such as national security, military planning and doctrines and determination of the role of the West European countries in the system of security and their place in the sphere of East-West relations may be assumed within the framework of this evaluation of the most general nature.

In the opinion of the authoritative American scientists S. Drell, P. Farley and D. Holloway--authors of a well-known report on the problems of SDI published by Stanford University--skepticism predominates in the West Europeans' evaluation of the "star wars" concept. Realization of the SDI, they fear, could lead to a strengthening of the mood in the United States in support of a "nuclear first strike against the Soviet Union". In this case Europe would be the highly probable theater of a nuclear war, and the American side, what is more, would adopt the decision on a possible nuclear attack "without them (the allies) having a right of veto or, possibly, a vote even." Thus, the authors sum up, "the revival of the prospect of the deployment of antimissile weapons would produce for West Europe not reassurance but uncertainty and, possibly, greater dangers" (3).

The United States would undoubtedly remain the winning side here. There would be primarily a strengthening of its positions in the set of Atlantic relations, and new opportunities for a power approach and outright diktat would be revealed. Further, the best models of West European achievements in the progressive fields of S&T progress (electronics, space technology, fundamental research connected with the SDI and others) would migrate across the ocean. The same applies to the financing by West European states and firms of various projects within the framework of realization of the "star wars" concept.

Such are Washington's calculations and plans. However, they are encountering very serious obstacles. The Atlantic allies have not proven as obedient to the will and instructions of the senior partner as the R. Reagan administration anticipated. And it is no wonder since Washington's egotistic interests show so clearly through the diplomatic phraseology of the West's "common interests" that they could not have failed to have been seen. And the proclamation of the "strategic defense initiative" itself was made without any consultations with the allies, to whom attempts were made subsequently, it suddenly being remembered, to show that this was being done in their interests. "The Europeans," THE NEW YORK TIMES wrote, "have been critical since the time when President Reagan announced his space wars program without having consulted

them. The plans for the flight testing of space-based weapons systems going far beyond the 'research' framework which the administration says it is conducting--testing capable of rendering an arms race in space irreversible--are causing particular concern" (4).

Under these conditions, particularly at the initial stage of promotion of the SDI, even Washington's most loyal partners deemed it necessary to express doubts as to the expediency of the United States' attempts to militarize space and associate the allies with fulfillment of the "strategic defense initiative". As a whole, a critical response was characteristic of the representatives of the majority of NATO countries, particularly in the initial period.

The American plans for the militarization of space were opposed by France. Anxious voices in connection with the prospects of the transfer of the arms race to space were also heard in Italy and other states. Even such a very close ally of the United States as Great Britain spoke out repeatedly on the danger of a destabilization of the international situation and an intensification of the arms race in the event of an acceleration of the SDI. Considerable concern was also expressed by the FRG Government. Judging by press comment, the country's ruling circles were disturbed by the possibility of an arms race in an entirely new sphere capable of strategically disuniting the United States and its allies. According to West German Defense Minister M. Woerner, realization of the SDI "would ultimately lead not to stabilization but the directly opposite result" (5).

The communists and other forces of the left are sharply criticizing the project. The "star wars" program was condemned in a resolution of the 14th EC Socialist Parties Union Congress in April 1985, in which the heads of government of Spain, F. Gonzalez, Italy, B. Craxi, and Portugal, M. Soares, and L. Jospin, first secretary of the French Socialist Party, participated, inter alia.

Undoubtedly, the concern, anxiety and critical attitude toward the "star wars" propounded by the United States reflect the predominant mood in the broadest circles of the West European community. However, it would be wrong upon an analysis of the current situation to underestimate other views also. Devotees of the SDI were found in the West European countries too. There are many of them in circles of the military-industrial complex, the highest echelon of NATO services and reactionary politicians, journalists and scientists. They are actively championing their positions, endeavoring to incline the corresponding governments in support of the American initiative. Thus the North Atlantic Assembly, which consists of representatives of the parliaments of NATO countries, declared, referring to the "growing military potential" of the USSR, that "there is every reason to continue the American research," and "the Atlantic alliance should not lag behind in these spheres..." (6).

Speaking in support of the SDI, representatives of the said circles are making active use of a number of arguments worked up by the American side. These are ideas connected with agitation for the creation of a "space shield," praise for the "humaneness" of space-based weapons, which are allegedly of a defensive nature and will ultimately make nuclear weapons unnecessary, and so

forth. Propositions set forth repeatedly by U.S. officials, including the President, are reiterated to this extent or the other. They are contained in concentrated form in Washington's official publication "The President's Strategic Defense Initiative" (7).

Other arguments are adduced also. They are based not only on the above-mentioned general aspects but primarily on a number of other considerations connected with the specific features of West Europe's location and its relations with the United States. A considerable proportion thereof is concentrated on aspects of an economic and also technological nature. "If the West Europeans do not participate in the SDI plans...", Prof K. Haffner, who urges participation in the SDI, observes in the West German weekly DIE WIRTSCHAFTSWOCHE, "this could have far-reaching consequences for them: the transition from semi-automatic to automatic machines accomplished by the Americans in isolation and their breaking of the technological 'sound barrier' will lead to a change in the correlation of the potential of novelties and products between the United States and (West) Europe to the disadvantage of the Europeans."

Thus a dramatic picture of a sharp increase in the technology gap between the Old World and the United States is painted. And he is talking, what is more, not so much about the military sphere as the purely civilian sectors of the economy. In the opinion of the "star wars" supporters, the SDI is capable of stimulating progress along the entire spectrum of modern technological fields. As the American journal ARMS CONTROL TODAY asserts, "throughout history the European allies have paid admiring tribute to American technical genius, and they continue to support the SDI research program, although they are troubled by Americans' virtually religious faith in technology" (8). Without involving ourselves in criticism of such views here, we would note merely that "technological considerations" are, perhaps, the most prevalent and frequently used part of the arguments in support of realization of the SDI.

Another part of the arguments is of a political-strategic nature and is connected with the specific features of mutual relations in NATO, the military machine of this alliance and its doctrine and strategy. At the center thereof is the problem of the credibility of the American guarantees. The supporters of "star wars" emphasize constantly that implementation of the SDI will do away with the United States' vulnerability to "nuclear attack" which emerged in the 1950's. This vulnerability had always engendered doubts in the NATO allies that Washington would consent to use nuclear weapons in the event of a war on the continent, disregarding the risk of a Soviet retaliatory strike against American territory. Advocates of West Europe's participation in the creation of antimissile defenses with space-based components also assert that even the protection solely of the United States' strategic nuclear forces would raise appreciably the credibility of its NATO commitments providing on Washington's part for first use of operational-tactical nuclear weapons, forward-based and medium-range missiles and then intercontinental strategic forces.

Calling for the creation of a "space shield," the French experts A. Kramiste and M. Geneste demand the opening of a space "umbrella over all the Atlantic

states". NATO's concept of "deterrence" would lose nothing from this, allegedly, and the security of the corresponding countries would allegedly be increased (9).

The Transatlantic "star wars" supporters actively insist on the need for the allies' participation in the implementation of Washington's plans. There has been a marked increase recently, what is more, in the tendency to prompt the West Europeans to create their own ABM system. An article by the American expert D. Yost in the journal *POLITIQUE ETRANGERE* is evoking considerable interest in this connection. The author specially analyzes the position of the West European countries in respect of SDI issues, criticizes the arguments of the circles which are opposed and brings the readers to the idea of the necessity ultimately for the development of West European states' ABM. D. Yost believes that realization of the SDI is capable of stimulating the development of military integration in West Europe which would on the basis of American technology create its own ABM system. And all these measures should be implemented within the NATO framework, what is more (10). According to data of the London Institute for Strategic Studies, the so-called "European Defense Initiative" pursues the goal of the creation of a defense merely of military facilities (11).

The coalition of supporters of "star wars" in West Europe which has become active recently is opposed by a powerful movement incorporating the most diverse strata of the population. They include prominent statesmen and fighters for peace, youth and women's organizations, scientists and military men, representatives of business circles and clergy. Within the framework of the SDI debate its critics have put forward a whole number of arguments convincingly revealing the aggressive nature of the "star wars" strategy and its military-political content and technological singularities. These arguments of a general nature are in principle similar to the positions of the American opponents of "star wars" (12). The ranks of the critics (as, incidentally, of the heralds of a "space shield" also) are by no means homogeneous. Whereas the communists, circles of the left, the progressive public and realistic public figures and politicians and experts advocate in principle the prevention of an arms race in space and consider the SDI a venture which is undoubtedly dangerous for the cause of peace, other critics, mainly close to ruling and conservative circles and the military and business establishment, argue somewhat differently. They proceed from their own concepts of the security of the corresponding countries, which do not always and in all things concur with the American interpretation.

A certain section of SDI critics believes that the creation of a "space shield" is capable merely of deforming the principle of the "indivisibility of the defense" of NATO, as it is formulated in official documents. "A discrepancy between the defense interests of the United States and West Europe" is, as the British *GUARDIAN* observed, possible in this connection (13). The Americans would to an increasing extent be oriented toward selfish interests concentrated in "Fortress America" and would to an increasingly great extent display an inclination to cast the allies to the whim of fate (14). It is for this reason that West Europe is far more interested than the United States in a strengthening of the terms of the ABM Treaty and the development of the process of extensive arms limitation.

Even the arguments of the "star wars" supporters who assert that the SDI would stimulate S&T progress in all areas and spheres of the West European economy are being seriously questioned. It is clear that even were a space-based defense system somehow to push forward S&T progress, this would be at the high price of the creation of a new class of exceptionally dangerous weapons. An interview with H. Riesenhuber, minister for research and technology of the FRG, in which he investigates in detail the possible consequences of a militarization of space, is highly interesting. Answering one question, he openly stated: "The SDI program should not be justified by possibilities of use of the results of the research for civilian purposes. It should be justified by the policy of allied relations and strategic considerations" (15).

The minister's opinion is confirmed by the newspaper FRANKFURTER RUNDSCHAU, which reported at the end of December 1986 on the postponement of negotiations on Europeans' participation in the work of a permanent orbital space station. According to American information, the newspaper writes, the postponement of the start of the negotiations was directly connected with the U.S. Defense Secretary's demand that this space station be used for military purposes also. According to the same information, the Pentagon intends incorporating in the contract a secret article which would deprive the West European allies of the possibility of rejecting the United States' plans. "The Americans are interested primarily in using it within the framework of the research pertaining to realization of the SDI," the FRANKFURTER RUNDSCHAU observes (16). Such examples are convincing testimony that the interests of the United States are far removed from concerns for the progress of West European technology in the civilian spheres.

The arguments being expressed particularly frequently in Britain and France concerning the possible fate of the so-called independent nuclear forces of these countries, which by the mid-1990's will incorporate approximately 1,200 warheads (17), have a very telling ring for the West Europeans. If, as some people in the West believe, the United States and the USSR deploy broad-based ABM systems, this could result for Britain and France, it is believed, in a devaluation of their own nuclear forces and increased dependence on the United States.

The turbulent debate in political and public circles is undoubtedly exerting the corresponding influence on determination of the policy of West European states' governments. Although their positions in respect of SDI have been adjusted repeatedly, it is possible to speak as a whole about the predominance of caution and a clear reluctance to agree immediately to concessions to the United States and automatically express solidarity with it. This was manifested particularly distinctly at the initial stage of promotion of the project.

A considerable role was performed by revelations heard in the United States from the mouths both of representatives of the administration themselves and circles very close to it. Truly, it is hard to believe officials advertising the SDI as a means of deliverance from nuclear weapons and wars when it was they who at one time were speaking of the need to achieve superiority to the

USSR, the possibility not only of fighting but also winning a nuclear war and so forth. But in parallel with these statements came the "confessions" of such figures as K. Gray and K. Payne proving the "acceptable loss" of tens of millions of lives, painting scenarios of future wars and extolling the SDI as a means of securing victory.

Under such conditions U.S. pressure on the European allies intensified. It has been manifested in the most diverse forms. Promises of fruits of S&T progress have been combined with crude pressure, and hints at significant orders being obtained, with calls for a display of "Atlantic discipline". Numerous visits of officials, sessions of NATO bodies and various seminars and colloquiums of both a bilateral and Atlantic nature have served this purpose.

The picture of the West European states' official attitude toward the SDI has now been quite clearly determined. A considerable number of the partners has adopted a restrained-critical attitude toward the "star wars" program, and only a few have agreed to take the plunge and cooperate at government level. France, Norway, Greece, Denmark and Canada have opposed participation in the preparations for "star wars".

As far as France is concerned, Paris has put forward the Eureka project (18), which is intended to unite West European states' efforts in the sphere of the latest technology, space research included. While highlighting the purely civilian focus of the project, its supporters are at the same time endeavoring not to counterpose Eureka to the SDI for a number of reasons, including that of not exacerbating relations with the United States. Nonetheless, the mere fact of the promotion of this project at a time when the White House has made the question of pushing through the SDI program at all costs of paramount importance testified that Eureka was being offered to the public as an alternative to the American project. According to FRG Foreign Minister H.-D. Genscher, the Eureka project is designed to "ensure and strengthen Europe's economic and technological competitiveness" (speech in the Bundestag of 8 November 1985).

A number of steps had been taken as of the fall of 1985 to advance the French project. The second meeting of ministers of the participating countries was held in Hannover in November 1985. It approved the concept of the Eureka program and a declaration on its principles and also submitted the first specific plans. Agreement was reached in the course of the meeting on the creation of a secretariat to administer the program.

The general understanding was revealed during M.S. Gorbachev's visit to Paris in 1985 that space should be closed to strike weapons. Speaking in Moscow in July 1986, F. Mitterrand declared: "France also keeps an attentive eye on questions concerning space. It attests that its use for military purposes is already a reality, but it would seem to it to be of essential importance to avoid any new arms race. It is better to give the search for peace every chance than to cross one further threshold in endless escalation."

The United States meanwhile has continued to put pressure on its allies, seeking the association if only of some of them with the SDI. It has been reflected particularly tangibly in determination of the position of the United

States' leading NATO partners, primarily Great Britain and the FRG. The class interests of imperialism and "Atlantic community" in the main areas of rivalry with the East obviously played an important part in the ultimate formulation of their position. The pressure of the national military-industrial complexes which have taken shape in Great Britain and the FRG and the influence of reactionary politicians and generals were of considerable significance also.

The first country to join in the SDI officially was Great Britain. The defense secretaries of the two countries signed the corresponding agreement in November 1985. It speaks of the participation of British industrial companies and universities in the development of "star wars" projects. In accordance with the latter, the companies will work in 18 areas of research, having as yet concluded contracts, however, only for \$2 million, which constitutes less than 4 percent of the budget resources to be spent on SDI in the 1987 fiscal year (19). According to press reports, the activity of the companies and research centers involved in the military-space program will be coordinated within the framework of a special department of Great Britain's Defence Ministry.

It should be noted that even in the ruling circles of the states which support Washington the picture is by no means unambiguous. The situation in the FRG, where heated arguments have flared up not only between the opposition and the ruling parties but also within the government majority, may serve as a graphic example of the acute struggle surrounding these questions. H. (Telchik), the FRG chancellor's foreign policy adviser, visited the United States in September 1985 at the head of a delegation of scientists and industrialists. The report which appeared as a result of the visit demanded the FRG's speediest association with the SDI inasmuch as it was precisely thus that it would allegedly be possible to derive the maximum economic, political and military benefit. However, the report's conclusions were criticized in the Foreign Ministry.

According to press reports, sections of the foreign policy department made a highly skeptical assessment of the possible benefits from participation in the SDI and considered the economic hopes illusory. In the course of the discussion which developed H.-D. Genscher proposed that the chancellor not conclude an intergovernmental agreement but confine himself to a less binding exchange of letters. But this position was not supported by CSU Chairman F.-J. Strauss. A decision in principle was adopted as a result of a meeting between the latter and Chancellor H. Kohl. They agreed on Bonn's participation in the SDI in the form of an intergovernmental agreement.

On 27 March 1986 M. Bangemann, minister for economics of the FRG, who was in the United States, and C. Weinberger signed the appropriate agreements in Washington. One of them regulates West German firms' activity in the sphere of SDI research, the other, "an improvement in general technology exchange". In April the Cologne newspaper EXPRESS published the full texts of the two agreements. It transpired that the United States, as the documents plainly indicate, reserves the right to decide which results of research within the SDI framework may be passed on to its West German partners, and which not. In addition, the agreements contain not obligations of the United States but merely its "declarations of intent". Bonn is essentially according the United

States the right of unlimited control over the actions of those of its firms which are to participate in the SDI research. Finally, both agreements and the "accompanying letters" supplementing them speak of plans for new restrictions in the list of West German commodities exported to the socialist countries. As K. Voigt, foreign policy expert of the SPD's Bundestag faction, emphasized, the FRG is thereby making itself even more dependent on American trade policy.

The third major West European country to associate itself with the SDI in the wake of Great Britain and the FRG was Italy. Initially Italian ruling circles had adopted a wait-and-see position. Serious debate on this issue developed in the country. Washington put increasing pressure on Rome, attempting to win it over to its side. It was no accident that Italy was the first West European country which Vice President G. Bush, who appealed to the allies to join actively in the "star wars" program, visited in June 1985. According to press reports, the greatest interest had been evoked across the Atlantic by Italian firms which had achieved notable results in the creation of laser and space technology, satellites, infrared sensors and special construction materials and lubricants and also in radar.

Step by step the government gave in to the United States' pressure. In March 1986 a special interministerial committee led by B. Craxi, the head of the government, sanctioned the participation of Italian companies in the SDI, and the official signing of a "Memorandum of Understanding" regulating the terms of the country's participation in "star wars" took place in September. Fearing the considerable objections of opponents, the Italian Government did not even submit this question for parliamentary debate. Nor were members of parliament familiarized with the full text of the memorandum, the secret nature of the agreement being invoked.

Italy's association with the SDI ties the country, which already had American nuclear cruise missiles on its soil, even closer to Washington's militarist plans. As far as the hopes for technological and financial dividends are concerned, they have proven highly transparent. The visit to Rome in November 1986 of Gen J. Abrahamson and his talks with Defense Minister G. Spadolini testify to this. This is what the weekly EUROPEO had to say about them in an article symbolically entitled "'Space Umbrella' Leaking Over Europe": "Abrahamson brought bad news. The long-awaited shower of gold for Italian firms, which are hoping to take part in the research on the creation of a space shield, will not happen."

Washington is undoubtedly expressing a feeling of satisfaction with the agreements signed with a number of NATO allies. However, it is also having to reckon with the fact that a mood in support of a renunciation of participation in the SDI prevails among the West European public. Having run into opposition, the United States is hoping to fill the breach in allied solidarity at least partially by establishing direct contacts with industrial firms and research centers. Such a path, initially, in any event, suits the United States. For example, the Dutch Government, which declared that it would not join in the "space defense" program, at the same time did not prohibit its private companies from cooperating in realization of individual aspects of the program.

In consenting to this form of participation or the other in a number of SDI projects certain West European political circles are frequently harboring illusions concerning the fact that it is a question merely of research. However, it is difficult to imagine that the United States is investing billion-dollar sums and expending tremendous efforts, in the political sphere included, merely to confine itself to the research phase. In conversation with a correspondent of the journal LE NOUVEL OBSERVATEUR the prominent American physicist R. Garvin emphasized that the \$26 billion allocated for the next 5 years itself testifies that the United States is planning not only research but also the deployment of a broad-based ABM system (20).

"What kind of peaceful future, what kind of strategic stability will we be able to speak of," M.S. Gorbachev said at a meeting with a delegation of the Nobel Prize Winners Congress on 13 November 1985, "if in addition to the missiles which already exist deep in silos and the ocean depths one more deadly threat--from space--looms above? Imagine in this case the world in 10-20 years time. Everywhere--from the bounds of the atmosphere at an altitude of 100 km to geostationary orbits--waves of various types of strike weapons will be flying over the heads of all people on our planet."

An important aspect of the question is that even if a war does not begin, realization of antimissile defenses with space-based components is capable of causing a sharp deterioration in the political climate in the world and destabilizing the international situation. Nor could this fail to be reflected in the conditions for safeguarding the West European states' national security. Even NATO Secretary General Lord Carrington, delivering a lecture at Cambridge University, doubted the possibility of the creation of a "strategic defense system" which "would meet the goals of maintaining a balance of forces and not signify an aspiration to superiority" (21).

Discussing a strengthening of the United States' security by means of the SDI, American strategists hope to effect this at the expense of the security not only of its rivals but also its friends. In fact, it is difficult to imagine realization of the formula of the "indivisibility of the defense" of NATO if the leading country of the North Atlantic alliance--the United States--will, as distinct from its bloc partners, be covered by a "space shield". As the expert C. Peebles, who is well known in the West, wrote in his book "Battle for Space," new types of space weapons, particularly lasers, "will appreciably influence international relations and nuclear strategy" (22).

Reactionary circles of the United States together with NATO militarists are not averse to nudging West Europe toward a stimulation of its own efforts in the space arms race. According to THE WASHINGTON POST, "U.S. military and industrial circles have begun on the quiet to encourage West Europe to give thought to a variety of President Reagan's strategic defense initiative for protection against medium-range missiles" (23). A "special coalition" headed by the Republican D. Hunter, which has presented the idea of propagandizing in West Europe together with the SDI a West European "defense system" based on U.S. information and technology, has been set up for this.

A realistic alternative to the "star wars" concept and an alternative to the growth of the nuclear threat for the whole world is the Soviet program of a

nuclear-free world. Formulated in the 15 January 1986 statement of the general secretary of the CPSU Central Committee and the decisions of the 27th CPSU Congress, it was developed in the package of Soviet proposals at the meeting in Reykjavik. The USSR's position, which is based on the principles of equality and equal security, was a graphic expression of new thinking in the nuclear age. The future of mankind is linked not with plans for "star wars" but with the "star peace" concept, which is contained in the program of the use of space for peaceful purposes proposed by the Soviet Union. The efforts of the most diverse countries in the exploration and conquest of space could be unified by a world space organization. There are truly inexhaustible opportunities for this.

The circles in West Europe which support active participation in realization of the SDI are assuming a grave responsibility. The specifics of the current situation are such that if the U.S. military-industrial complex succeeds in the full-scale development of the corresponding efforts and involving its allies therein, no negotiations will be of any help. The danger of such a development exists.

A strengthening of national security needs to be sought on the path of the complete elimination of nuclear weapons and the creation of an all-embracing system of international security precluding any wars--both nuclear and conventional.

FOOTNOTES

1. "Strategic Defense and Anti-Satellite Weapons. Hearing Before the Committee on Foreign Relations". 98th Congress. 2nd Session, Washington, 1984, p 58.
2. See WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, 28 March 1983, p 423.
3. S. Drell, P. Farley and D. Holloway, "The Reagan Strategic Defense Initiative: A Technical, Political and Control Assessment," Stanford, 1984, pp 75-76.
4. THE NEW YORK TIMES, 12 January 1985.
5. Ibid., 14 April 1984.
6. Quoted from AVIATION WEEK AND SPACE TECHNOLOGY, 24 October 1983, p 59.
7. See "The President's Strategic Defense Initiative," January 1985.
8. ARMS CONTROL TODAY, March 1986, p 7.
9. See M. Geneste, A. Kramiste, "De la terreur a la defense: le changement de Parapluie" (DEFENSE NATIONALE, January 1984, pp 50-51).
10. See D. Yost, "Les inquietudes europeennes face aux systems de defense anti-missiles" (POLITIQUE ETRANGERE No 2, 1984, pp 394, 396).

11. See "Strategic Survey 1985-1986," London, 1986, p 46.
12. See M. Bundy, G. Kennan, R. McNamara, G. Smith, "The President's Choice: Star Wars or Arms Control" (FOREIGN AFFAIRS, Winter 1985).
13. THE GUARDIAN, 10 January 1985.
14. See J. Vernan, "La Guerre des Etoiles" (DEFENSE NATIONALE, December 1984).
15. DER SPIEGEL, 9 September 1985, p 28.
16. FRANKFURTER RUNDSCHAU, 23 December 1986.
17. See ARMS CONTROL TODAY, March 1986, p 8.
18. Eureka--European Research Coordination Agency.
19. ARMS CONTROL TODAY, March 1986, p 10.
20. LE NOUVEL OBSERVATEUR, 4 January 1985, p 33.
21. THE NEW YORK TIMES, 1 February 1985.
22. C. Peebles, "Battle for Space," Dorset, 1983, p 182.
23. THE WASHINGTON POST, 19 November 1985.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

JAPAN'S ROLE IN U.S. MILITARY-SPACE PLANS

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 49-55

[Article by S. Chugrov: "Japan's Role in the United States' Military-Space Plans"]

[Text] The possible military-strategic and international-political consequences of the plan proposed by Washington for the creation of a global antimissile system with space-based components has affected the interests of the United States' allies both from the viewpoint of the stability of the balance in the world and purely regional aspects of the problem. Advocates of the "strategic defense initiative" solemnly assert that a "space umbrella," were it to be created, would "cover" the territory of states allied with Washington in West Europe and Asia. "Inasmuch as the security of the United States is inseparably connected with the security of our friends and allies, the SDI program will be geared not only to the development of technology with defensive potential against ICBM's and SLBM's. We will also study and simultaneously develop technologies effective against shorter-range ballistic missiles," the annual report of the Pentagon chief to the U.S. Congress said (1).

London, Bonn, Rome and Tel Aviv agreed to participate in varying form in realization of the SDI research program. Following this, Washington's main attention was directed toward the official association with the program of its Far East ally--Tokyo.

On 9 September 1986, following a session of the Japanese Government, M. Gotoda, general secretary of the cabinet, presented an official statement on Japan's decision to associate itself with realization of the "strategic defense initiative". The statement pointed out that Japan, "adhering to the position of a peaceful state, insistently seeks to ensure by way of a significant reduction in nuclear missiles the establishment of more stable East-West relations and on this basis the ultimate elimination of nuclear weapons." It is a question of participation at a certain stage not only of private firms but also government organizations in specific research projects, "which will be developed and confirmed by the United States".

This decision did not as such mean automatic association with the SDI program inasmuch as it provided for "consultations with the U.S. Administration on essential specific measures for the purpose of ensuring conditions conducive to Japan's participation in the SDI" (a series of such negotiations was held at the end of last year and the start of this). But at the same time it is of fundamental significance and clearly and unambiguously expresses the government's foreign policy platform.

How was this position formulated, what is its actual content, with what is it fraught for the country?

I

For 18 months following the "official birth" of the SDI Tokyo remained aloof from Washington's allies' discussion of "star wars". This was explained primarily by the fact that, as distinct from the NATO countries, which conduct regular consultations on strategic arms problems, Japan, as a rule, does not participate in such negotiations. Nonetheless, the possibility of the country's association with the "President's initiative" was actively discussed in the Japanese press.

Concern for the fate of arms control in the event of the deployment of space-based weapons in near-Earth orbit shows through in the first press comments on President R. Reagan's "star" speech of 23 March 1983. Assessing the "star wars" program, the TOKYO SHIMBUN, for example, observed: "It has to be stated that an aspiration to disarmament is not perceived therein." The newspaper also expressed concern at the state of U.S.-USSR relations: "Aside from everything else, we would like to hear from President Reagan what steps he intends taking to extricate American-Soviet relations from deadlock" (2). Coinciding with these expressions was NIHON KEIZAI SHIMBUN's conjecture that the threat to Japan on the part of the USSR had been considerably exaggerated (3). The military-political consequences of attempts to realize the "star wars" plans were pointed out also. "The Soviet Union will believe that the United States, possessing strategic defenses, has the exclusive possibility of carrying out a nuclear attack," ASAHI wrote. "The Soviet side will either build up offensive power to destroy the enemy's defensive potential or endeavor to create a similar defensive potential.... If one side reinforces the shield, the other sharpens the sword" (4).

The position of the official authorities, who confined themselves to statements of a general nature in support of the idea of preventing the militarization of near-Earth space, contrasted with the press' extensive discussion of the problem. Prime Minister Y. Nakasone declared on 25 January 1985, for example, addressing the Japanese Parliament: "Our country has repeatedly and for various reasons actively emphasized the importance of disarmament, nuclear primarily. For this reason we welcome the mutual will of the United States and the USSR to conduct new negotiations on nuclear and space-based arms and to prohibit the deployment of nuclear weapons in space. We are sure that negotiations which set as their goal a halt ultimately to the race in nuclear arms on Earth and in space are a fundamental principle of an easing of international tension" (5).

Against the background of such solemn declarations Tokyo's real attitude toward specific aspects of SDI began to acquire visible contours. The second stage of the formation of the official position on this problem (start of 1985-start of 1986) was characterized by the fact that a search for a general conceptual platform of participation in the SDI came to replace the indecisiveness and meditation. At the January (1985) meeting of Reagan and Nakasone in Los Angeles the U.S. President officially proposed to Japan technical cooperation within the "strategic defense initiative" framework. The prime minister then gave the President a kind of "new year's gift," expressing "understanding" apropos American research in the sphere of antimissile defenses with space-based components. He observed, however, that speaking about Tokyo's "participation" therein was premature inasmuch as his country did not at that time have sufficient information on this question.

Ya. Nakasone made it understood that Tokyo was prepared in principle to supply across the ocean the necessary technology and could "respond positively" to the United States' possible requests for specialists to be sent there to study the prospects of cooperation within the framework of the research program. Answering members of parliament's questions at the end of January 1985, then Foreign Minister S. Abe asserted that the "strategic defense initiative" was not contrary to the tasks of the use of near-Earth space for peaceful purposes.

The subsequent "SDI calendar" testifies to Washington's increased pressure on the Japanese leadership for it to adopt an official decision on association with R&D within the framework of the "star wars" program. On 27 March 1985 U.S. Defense Secretary C. Weinberger sent a message to S. Abe which emphatically appealed to Japan to join in the American plans. The appeal was accompanied by a demand for a reply to the "invitation" within 2 months. Later, however, Washington withdrew this insulting ultimatum-type demand.

An agreement was signed in the spring of 1985 between the American NASA and the Japanese National Space Research Agency on cooperation in the creation of an orbital station, which is assigned the role of "space headquarters" and repair-engineering base for military satellites.

In April 1985 the participants in a Tokyo meeting of conservative politicians, representatives of big business, economists and political scientists from the United States, Japan, West Europe and Canada supported the speediest enlistment of the United States' allies in the "star wars" program. The final report of the meeting contains a direct demand for Japan and West Europe to put their scientific and technological potential at the Pentagon's disposal immediately. An author of the "Tokyo report," M. Nishihara, professor at the Japanese National Defense Academy, supported in an interview with the Kyodo Tsushin Agency the creation of a system of the tripartite military, diplomatic and economic cooperation of the United States, West Europe and Japan.

Tokyo's official position was made specific at a meeting of the Japanese prime minister and the FRG chancellor prior to the Bonn meeting of the heads of the seven biggest capitalist countries in May 1985. Reaching a common opinion concerning the expediency of R&D in respect of the "star wars" program, the leaders of Japan and West Germany approved in general form five principles

which are to determine the terms of participation therein. They include the United States' renunciation of the use of the SDI to acquire one-sided superiority to the Soviet Union; the creation of a "strategic defense" system merely as a component of the "factors of deterrence" complex; proclamation of the purpose of the SDI a significant reduction in offensive nuclear forces; scientific research to be conducted without it going beyond the framework of the Soviet-American ABM Treaty; and Washington's undertaking prior to deployment of an antimissile system with space-based components to consult with its allies and the USSR.

These principles actually represent consolidated wording contained in various speeches of R. Reagan. They give rise to a mass of questions. How, for example, could a program for the creation of space-based weapons not pursue the goals of gaining one-sided advantages over the USSR if it is aimed at putting the United States in an exclusively advantageous position for delivering a first strike? Could the adopted space-based strike weapons secure a radical reduction in offensive nuclear forces if, as acknowledged by Japanese experts themselves, the natural reaction of the side not possessing a "space shield" has to be a buildup of strategic weapons to neutralize the SDI?

At the end of August 1985 Lt Gen J. Abrahamson, leader of the SDI Organization, declared that the allies should be familiarized with the "advantages of the strategic defense initiative" by way of a bilateral exchange of delegations of experts.

In April 1985 even a group of American specialists was demanding in the Japanese Foreign Ministry that Tokyo contribute to implementation of the program. In October 1985 and at the start of the following year the United States was visited by Japanese delegations at Foreign Ministry, National Defense Agency, International Trade and Industry and other department section chiefs. Arrangements were arrived at with the Pentagon concerning the fact that the Trans-Pacific ally would be supplied with the technology for the production of missile guidance systems. The Japanese press assessed the results of the negotiations as a transition to practical association of the country's S&T potential with realization of the "strategic defense initiative" (6). The third stage of Japan's introduction to the SDI had begun. The sides embarked on a quest for a specific "association formula".

A third delegation of Japanese officials, experts and business representatives consisting of 55 persons was in the United States from 31 March through 8 April 1986. A report dispatched to the government notes "the likelihood of the extensive impact of Japan's participation in research within the SDI framework on an improvement in the country's corresponding technological standards".

A confidential discussion of the problem of Japan's association with the SDI took place during the Tokyo meeting of the "seven" at the start of May 1986. The White House spokesman noted at a press conference merely "progress" on this issue, refusing to communicate the specific results of the conversations between Reagan and Nakasone.

The decision on association with the American plans for the militarization of space "matured" in zigzag fashion and inconsistently inasmuch as the

authorities were forced to operate with an eye to public opinion. While declaring "understanding" in respect of the SDI program, the leaders of the ruling Liberal-Democratic Party (LDP) for a long period of time occupied a temporizing position and employed their traditional tactics of procrastination and avoidance of specific commitments. The decision-making deadline was deferred repeatedly: they wished to time it to coincide with the session of parliament, with Weinberger's visit to Japan, with the Tokyo meeting of the "seven". The Japanese Government ventured to formulate its position only following its success at the parliamentary elections in July 1986, when the ruling party noticeably squeezed out its political rivals. A policy of full-scale association with the "strategic defense initiative" was adopted.

The cabinet decision which followed on 9 September 1986 was merely an outward divide between phases of the country's association with the SDI, initiating a new stage--that of "coordinating details". It is to culminate in the spring of this year, as the Japanese press predicts, in the conclusion of the corresponding intergovernmental agreement with the R. Reagan administration following settlement of the questions of ownership of the results of the joint research and so-called "secrecy guarantees" (7).

II

The history of the country's involvement in the SDI has a "background" also, reflecting the essence of the process.

A specific feature of the situation is that Washington, endeavoring to conclude a special governmental agreement, had long since established direct contacts with Japanese firms. This form of cooperation suited the "clients" to a certain extent. The government research institutes under the auspices of the National Defense Agency are engaged in studies mainly in the conventional arms field. The bulk of the progressive technology necessary for implementation of the "star wars" program, on the other hand, is in the hands of private corporations. These include Mitsubishi Electric, Toshiba, Fujitsu and others.

This situation is to a considerable extent satisfactory to the LDP also, making it possible to avoid an open confrontation with the opposition. Dragging out the signing of an official government agreement, the Japanese authorities preferred cooperation with the United States at the private level. Back in June 1985 a Foreign Ministry spokesman declared in parliament that the cabinet "does not intend imposing restrictions" on Japanese business' association with realization of the SDI.

Japan's position is thus in conflict with the principle of the refusal to export arms and their components formerly proclaimed by the country's government. However, a loophole was found here also. In January 1983, that is, 2 months before the "strategic defense initiative" was proclaimed a "national goal" of the United States, Japan signed with it a bilateral agreement officially granting Washington, "as an exception," access to military-engineering novelties which it developed. And it turned out that a considerable proportion of the technologies in which the Pentagon is interested is connected in one way or another with the plans for the militarization of space.

Under these conditions Tokyo's consent to associate with the SDI is obviously of special importance to the U.S. Administration. It is significant that it was announced on the threshold of the fall American congressional elections, at which the Republicans hoped to strengthen their positions. The final determination of Japan's position in respect of "star wars" in the eyes of its trans-Pacific ally was an official demonstration of membership of the Western camp and firmness of its foreign policy.

Washington is not concealing its interest in advanced Japanese technology, which could be used to create assault space-based weapons. What is of the greatest interest to the Pentagon? In May 1985 General Abrahamson named for the first time three specific spheres: computer technology with hardware and software, electronic-optical equipment and technology and also lasers.

The military-engineering consultations showed that the American side is attracted primarily by optical data disks which use laser beams to record a large volume of information, optical-fiber data transmission systems, LCD's and also the achievements of Japanese S&T in the sphere of very large integrated circuits and heat-resistant materials.

The focus of the Pentagon's interests is perfectly understandable: American scientists and engineers are faced with the task of designing a computer system for processing giant blocks of data under extreme conditions. The United States intends creating new resources for transmitting orders from the Earth to space and "coordinating the operation" of spy satellites and so-called "killer satellites" equipped with laser and beam weapons. In other words, Japan's latest technological achievements, American strategists intend, are to lay the foundation of the "nerve system" of the future American antimissile-space complex, that is, of the battle management, communications, observation and warning subsystem.

Step by step, with the tacit blessing of the authorities, Japanese firms "quietly" joined in the SDI. It follows from publications of the American and Japanese press that certain components of space-based weapons designed in Japan have long been undergoing tests in American laboratories. Among them we may mention the Sharp firm's deflecting shield and the Kyocera company's special industrial ceramics used, inter alia, in the integrated circuits of the on-board computers of multiple-use spacecraft. The American branch of the Hitachi (kindzoku) corporation has since 1983 been cooperating with secret laboratories at Los Alamos, supplying magnetic blocks--the main component of beam weapons. Several Japanese firms have joined international consortia conducting studies within the framework of the "star wars" program. Specifically, the Mitsubishi (dzyukoge) engineering concern will together with its American partners and the West German Telefunken undertake the modernization of the Patriot air defense complexes for the purpose of creating tactical missile intercept systems.

Instances of the cooperation of Osaka University's Laser Research Center and the Lawrence Livermore Laboratory, which is working on the creation of an X-ray laser, have had particular repercussions. "The laser device of the greatest power used in research within the framework of the SDI program is the

Nova-type laser, work on which the Livermore Laboratory's scientists completed in April 1985," the bulletin KHEYVA TSUSHIN, which is published in Osaka, writes. "They used as the prototype a laser created in the Osaka University Research Center, which prior to this had been considered one of the most powerful in the world.... The nodes for a nuclear-pumped laser which were developed in the Osaka laboratories are already being used by the Americans in the design of laser and beam weapons capable of destroying ICBM's from space" (8).

The problem of Japanese scientists' participation in the development of a nuclear-pumped X-ray laser is of fundamental significance for Japan inasmuch as it has, as is known, proclaimed three nonnuclear principles--not to manufacture nuclear weapons, not to possess them and not to import them onto its territory.

In this connection Japanese Government circles emphasize that the SDI program provides for the creation of the most diverse military-engineering systems without the use of nuclear power, and for this reason Japan, they say, may conduct studies without violating its nonnuclear principles. In addition, they extend, Tokyo officials observe, only to the territory of the country and do not limit Japanese research within the framework of the American program.

Addressing a session of the Budget Commission of the lower chamber of parliament in November 1986, Ya. Nakasone declared that "in nuclear weapons the energy of the explosion is used directly to kill and destroy; as far, however, as the use of a nuclear explosion as a source of energy in the SDI program is concerned, in this case we are dealing with the indirect use of the energy of nuclear fission" (9). This interpretation of the effect of a nuclear explosion essentially excludes the X-ray laser from the nuclear weapons category, and this does not withstand serious criticism. A nuclear explosion in space is in flagrant contradiction to the rules of international law, specifically, the 1963 Treaty Banning Tests of Nuclear Weapons in Three Media and the 1967 Treaty on the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies. There are also contradictions concerning Japan's commitments pertaining to the Nuclear Nonproliferation Treaty (1968).

Association with the SDI also reduces to a scrap of paper the resolution of the Japanese Parliament passed in 1969 concerning the peaceful conquest and use of outer space. "...The legal interpretation of the parliamentary document should essentially be ascertained in parliament," an official statement on Japan's decision to associate with the SDI observes. "Nonetheless, the government believes that the inclusion of our country in SDI research is not in contradiction with the said resolution." Thus without involving itself in explanations, the government essentially cancelled out an important document, taking one further step toward participation in Washington's global nuclear strategy aimed at transferring the arms race to space.

III

Washington's allies' reaction to Reykjavik proved, as is known, dissimilar, particularly at the start. As far as the Japanese leadership is concerned, it immediately came out with a positive evaluation of the platform of the

American side. Nakasone expressed "understanding of President Reagan's decision". The prime minister emphasized: "I well understand that in defense of most important national interests he did not yield one centimeter. Japan acts the same."

Nakasone reflected in this pronouncement the principles of the country's ruling elite, which interprets national interests from the viewpoint of the Japanese-American "security treaty". Within the framework of this logic participation in the SDI is Japan's direct duty. But it follows from this that a number of principles proclaimed earlier by the government and hitherto considered the quintessence of the country's foreign policy do not reflect national interests.

Also totally unconnected from the viewpoint of military-political realities were the statements made after Reykjavik by Foreign Minister T. Kuranari that Japan hopes for the subsequent "achievement of accords in nuclear disarmament and arms control" and simultaneously "supports the position of the United States" on the problem of SDI. This support is acquiring perfectly tangible forms. The decision was made to render the Japanese firms which will participate in the "stars wars" program not only technical but also financial assistance. NIHON KEIZAI SHIMBUN observed that this step was in the way of being "flanking support for the position of Washington, which at the Reykjavik meeting expressed the intention to move forward at any price research pertaining to the strategic defense initiative." In the course of questions in parliament in the fall of 1986 the members of the cabinet actually employed American vocabulary, presenting a defense of the SDI and speaking about an aspiration with its help "to contribute to an acceleration of the disarmament process".

What is the attraction of the "star wars" program for Japanese politicians prepared to transgress nonnuclear principles, parliamentary resolutions and government declarations." In order to answer this question it needs to be recalled that the country's new constitution adopted following the smashing of the Japanese military machine contains a provision concerning the renunciation of war as a means of solving conflicts. Official military doctrine bans the creation of offensive arms. The very word "defense" has become firmly rooted in the consciousness of a people which well remembers the horrors of war, including the atomic bombing of Hiroshima and Nagasaki, and the majority of which has a critical attitude toward military preparations.

For this reason Japan's ruling circles are giving the appearance of taking seriously the concept of the "purely defensive" nature of the plans for the creation of a global antimissile-space-based system. The manipulation of terms conceals a complex interweave of economic and political goals. In associating itself with the SDI Tokyo is evidently hoping to make one further spurt ahead in the "dual-purpose" high technology sphere and satisfy the requests of concerns endeavoring to reach new markets and at the same time assist its Trans-Pacific ally, thereby smoothing over somewhat the trade and financial contradictions. And the possibility of stimulating the military-engineering areas of R&D without coming into conflict with the section of society which still harbors illusions concerning the true meaning of the word "defense" in the vocabulary of certain Tokyo politicians is appearing, what is more.

Reiterating after President Reagan the words about an aspiration "to deliver the world from nuclear war," the Japanese ruling elite considers the American invitation a convenient opportunity to register the country with the club of possessors of arms of the "post-nuclear era". Such ambitions were born in the influential lobby of politicians and a number of business representatives who are dissatisfied with the discrepancy between Japan's powerful economic potential and its insufficient, in their opinion, military potential. They see the SDI program as an opportunity to use the achievements accumulated over many years in the technology sphere. This flywheel is now running idle, they believe, and it should be cranked up to full speed for a "strengthening of the country's defenses".

But will participation in the "star wars" program consolidate Japan's positions? Responsibility for escapades has, as numerous examples from history testify, to be borne by all their participants.

This is understood by many politicians within the ruling party also. The plans to associate the country with the "strategic defense initiative" are criticized by former prime ministers T. Miki and Z. Suzuki, who discern in them, inter alia, Washington's endeavor to monopolize the fruit of joint S&T efforts. Having become chairman of the LDP Executive Council, S. Abe advocates a restrained approach.

Also seriously concerned is a section of Japan's business circles, which believes that the United States intends organizing a "technology drain" to undermine the country's positions in the S&T rivalry. For example, Japan's Federation of Economic Organizations (Keydanren)--the country's leading association of big capital--has advocated national firms having the opportunity to use the results of SDI research in their own interests.

A number of Japanese political scientists (S. Ienaga, S. Sawada, S. Yoshikawa and others) are calling in question the strategic expediency of the American program. Specifically, they believe that its realization would sharply destabilize the strategic balance, spur a race in offensive types of nuclear weapons and damage the arms limitation and reduction process. Many people also see it as an attempt by the United States to strengthen its political positions within the framework of the American-Japanese alliance.

Specialists observe that the "star wars" program is unsafe for Japan. The version of the use of an X-ray laser fired in the event of military need into near-Earth orbit from a submarine is adduced as an example. "As far as the areas of deployment of such submarines are concerned," KHEYVA TSUSHIN writes, "they could hypothetically be the waters not only of the East Mediterranean or the North Sea but of the Sea of Japan also" (10). The potential danger for the country of such a version of escalation of conflict is not doubted by Japanese scientists.

Skepticism is on the increase among experts in respect of the plans to create antimissile defenses with space-based components. According to the Kyodo Tsushin Agency, a poll conducted in November 1986 among members of Japan's physics community showed that only 10 percent of those polled supports the

"star wars" program. Almost 80 percent opposed it, and more than 70 percent declared that they would respond with a refusal to an offer to participate in the corresponding scientific studies. As a whole, approximately 10,000 scientists, the agency observes, signed a statement protesting the country's involvement in realization of the "strategic defense initiative".

To sum up their arguments, the reasoning goes as follows. In the event of nuclear war, Japanese specialists believe, the country would be threatened primarily not by strategic but operational-tactical types of weapons. The approach time for them is so negligible that the very possibility of the effective activation of a "space defense" system is questionable. Intercept missiles would have to operate under conditions of a critical time shortage. The high concentration of the population and production capacity on the Japanese islands, the experts note, makes problematical the limitation of damage given any version of an antimissile "shield"--both defense of individual military facilities and the entire territory. As a result the conclusion is that an antimissile-space-based system optimized for the United States would be far less suitable for Japan owing to its geostrategic position.

Granted all the impressiveness of these arguments, the essence of the question lies elsewhere. In reality the United States intends involving Tokyo and its other allies in the realization of plans aimed at breaking up the strategic parity, an unchecked arms race and acquiring the capacity for a nuclear first strike in the hope of impunity.

Increasingly broad strata of Japanese society recognize that the alternative to the creation of space-based assault arms must be "star peace" and states' equal cooperation in the peaceful conquest of space. The leading opposition parties and social organizations are insistently demanding renunciation of participation in the American program. In response to the questionnaire concerning political parties' attitude toward the SDI distributed last July by activists of the antinuclear movement Japan's socialists emphasized that the plans of the White House not only do not correspond to the interests of the preservation of peace but, on the contrary, increase the danger of the chance outbreak of nuclear war and will lead to a new stage of the arms race. The Japanese Communist Party sharply criticized the U.S. Administration's plans, noting the threat to the cause of peace on the part of new military projects contrary to the people's interests. The country's third biggest opposition party--the Komeito--also opposed Japan's participation in the programs for the militarization of space. One of its members of parliament, N. Wada, emphasized that the American plans will lead merely to a dangerous exacerbation of tension.

It was observed at M.S. Gorbachev's meeting with a delegation of the Japanese Socialist Party that "Japan's role on the world scene could grow on the basis of its contribution to the peaceful solution of urgent international problems and the establishment of peaceful cooperation with all countries and peoples and not on the path of the country's militarization and its ever increasing incorporation in the military plans of the United States."

A positive response by Tokyo to the concept put forward by the Soviet Union of an all-embracing system of international security and its own constructive proposals would contribute both to the country's enhanced authority in the world and the conversion of its policy into a permanent factor impeding the growth of confrontational trends in the Asia-Pacific region.

Not Japan's association with the creation of space-based weapons but its practical participation in the realization of a consistent program of measures aimed at building a nuclear-free and nonviolent world could be a cardinal solution of the problem of stabilization of the situation in Asia and the Pacific. Tokyo's position is of considerable significance for confidence-building in the region and for the affirmation of new principles in the life of the world community generally.

FOOTNOTES

1. "Report of the Secretary of Defense Caspar W. Weinberger to the Congress on the FY 1986 Budget, FY 1987 Authorization Request and FY 1986-90 Defense Programs," February 4, 1985, p 55.
2. TOKYO SHIMBUN, 25 March 1983.
3. NIHON KEIZAI SHIMBUN, 28 March 1983.
4. See ASAHI, 28 March 1983.
5. "Survey of Japanese Foreign Policy. Collection of Documents," Tokyo, 1985, p 374.
6. See YOMIURI, 6 October 1985.
7. See NIHON KEIZAI SHIMBUN, 4 January 1987.
8. KHEYVA TSUSHIN, 18 December 1985, p 12.
9. ASAHI, 5 October 1986.
10. KHEYVA TSUSHIN, 26 May 1986, p 24.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

CONTINUING DISCUSSION OF CAPITALIST ECONOMIC INTEGRATION

[Editorial report] Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, 1987 (signed to press 12 Feb 87) publishes on pages 56-67 three more articles in its series "State Regulation and Private Enterprise in Capitalist Countries: Evolution of Mutual Relations," which has appeared regularly since issue No 10, 1986. Ya. Pevzner's article "State Ownership as Part of the System of Economic Regulation" analyzes the concept and role of "state ownership" in the capitalist economic system and comments that it differs from country to country. He notes that "the economic policy of the bourgeois state more and more is moving toward 'commercialization' of state enterprises and that "state participation in credit... is not saving the capitalist economy from crises, inflation and unemployment." He concludes as follows: "During the course of the current crisis of the entire system of regulation there is taking place not so much a general weakening as a transformation of individual blocs and their internal structure. As V. Volobuyev pointed out [in a previous issue of MEMO not specified], the course being formed makes it possible even today to speak of the gradual coming into being of another mechanism of state-monopoly regulation, a new state-monopoly structure. There are more than sufficient grounds for such a conclusion. The main one is the fact that the essence of the changes taking place is not in the growth or the reduction of one indicator or another characterizing the state's share but in the rapprochement of state macroeconomic regulation and functioning of private enterprises at the microlevel. 'Commercialization' of state enterprises is only part of the process. Privatized state enterprises are not so 'anarchically unrestrained' as private firms were before WWII. Ordinary large private companies which were never state companies are gradually changing face: there is an increasing dependence not only on the market for commodities, capital and credit but also on state participation in these markets which are controlling state activity."

In his article "On the Question of the Use of the Category 'State-Monopoly Capitalism'" S. Papyan (Yerevan) argues that the concept of state-monopoly capitalism is still very important and addresses the issue of its precise definition. He notes that it is necessary to pay more attention to an analysis on the one hand of the peculiarities and specifics of the process of combining the power of the private monopolies with the power of the state into a single mechanism ("amalgamation") and, on the other, state intervention in the capitalist economy in the era of imperialism. Turning to the terms "state capital" and "state capitalism" in particular, Papyan states that raising the

category "state capitalism" to a new level will provide an opportunity to isolate in the system of state-monopoly capitalism that link which is formed as a result of the functioning of state capital." He concludes as follows: "Today under the conditions of the present level of development of the practice and theory of state-monopoly capitalism the scientific significance of this category is in no way diminishing" and "the category of 'state capitalism' will contribute to a clearer reflection of the multilayer structure of the system of relations of present-day state-monopoly capitalism and the role of one of its most important components--state capitalism."

The future of "state-monopoly" capitalism is examined in I. Osadchaya's article "Will State-Monopoly Capitalism Become 'State Capitalism'?" state capitalism being defined as a higher stage of state-monopoly capitalism. Osadchaya quotes extensively from a recent book "The Laws and Categories of K. Marx's 'Das Kapital' in the Light of Current Data" by S. Mochernyy (Kiev, 1986, 242 pages) and Mochernyy's monograph "The Mechanism of State-Monopoly Capitalism and its Contradictions" (Kiev, 1986). She discusses the criteria for state capitalism and the system of instruments for intervention in the processes of capitalist reproduction developed by state-monopoly capitalism. She notes that new trends are being observed in macroeconomic policy and comments on the role of the budget in competition regulation, the importance of tax and credit-monetary policy and, particularly, the role of international aspects of regulating a capitalist economy. She says in conclusion that "quite substantial changes are taking place in the mechanism of state-monopoly capitalism in developed capitalist countries, but by no means in the direction of 'state capitalism'. There is under way a process of forming new systems of ties between the state and the monopolies, a new correlation between regulation and the market formed by current peculiarities in the development of the S&T revolution, the intensification of international competition and the growth of the internationalization of capital."

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

CSO: 1816/7-P

U.S. OFFICIAL HIGH-TECH POLICY

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNIYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 76-82

[Article by N. Pusenkova: "Official U.S. Policy in the 'High Technology' Sphere"]

[Text] The end of the 1970's-start of the 1980's were characterized by fundamental transformations of industrial production and the nonmaterial sphere with the priority development of progressive technologies transforming the traditional and creating new sectors; a change in the structure of the economy and the nature of intersectoral relations; and increased production efficiency.

A most important role in the restructuring of the material-technical base of the economy belongs to so-called "high technology," which is the symbol of a new stage of the S&T revolution (microelectronics, flexible manufacturing systems, automated production and design systems, robotics, biotechnology and new materials). Its dynamic growth determines changes in the structure of the economy, and the level of the intensification of production and, in principle, the growth rate of labor productivity depend thereon. It is with "high technology" that the main hopes for an acceleration of economic development, an increase in products' competitiveness, an easing of the unemployment problem and a revival of depressed areas are linked. It occupies a central place in the economic strategy of the monopolies and government authorities of the capitalist countries.

Problems and Prospects

Subbranches of the high-science sector, in which the proportion of expenditure on R&D in the value of sales (amounting to 10-12 percent) and the relative significance of scientists and engineering-technical personnel in the overall numbers of persons employed is, at a minimum, twice as high as the average indicators for manufacturing industry, pertain to "high technology". The specifics of these industries are that they exert a revolutionizing influence on practically all spheres of social production. Thus products of biotechnology--a most important area of S&T progress--are being applied in the most diverse spheres of health care (antibiotics, vitamins, enzymes, amino acids, interferon, hormones, vaccines); food industry (nucleotides,

biopolymers, isoglucose); power engineering (ethanol, biogas); chemical industry (ethylene, acetone, butanol, butadiene). Oil pollutants are being combated and effluent purified with the aid of microorganisms. The achievements of biotechnology are making it possible to replace many energy-consuming and ecologically dangerous chemical processes, and in agriculture, to cultivate new highly productive plant varieties.

The boundaries of the "high technology" sector are as yet insufficiently clearly defined: according to the most widespread estimates pertaining to the start of 1986, approximately 12,000 companies are operating in its five main fields--computer production, biotechnology, fiber optics, robotics and new materials. The actual significance of the progressive industries is greater than ensues from the modest statistical indicators of their relative significance in the economy: the ratio of the value of "high technology" product shipments to GNP by 1983 constituted approximately 7 percent; according to forecasts, by 1993 it is to have risen to 10 percent. Thus the value of the sales of semiconductor instruments in the United States at the start of the 1980's amounted to only 0.5 percent of GNP, but they are a base component of products of both the high-science and traditional sectors (computers, robots, machine tools with numerical programmed control, automobiles, electronic watches and so forth).

The singularities of the process of monopolization of the progressive industries calls attention to itself. For example, aside from the vertically integrated giant IBM, electronic systems manufacturers (Hewlett-Packard, Hughes) and major specialized companies (Texas Instruments, Motorola, Intel), a large number of small specialized firms (Siliconix, Monolithic Memories, Micron Technologies and many others) which have found their niche on the market are engaged in the manufacture of semiconductor instruments in the United States). Such a structure of producers determines the seriousness of the competitive struggle and the need for the use of the latest achievements to maintain and strengthen the firms' positions.

Combined with the relative youthfulness of the high-technology industries, this is the reason to a large extent for the dynamism of their development. From 1972 through 1982 the average annual rate of increase in the shipments of semiconductor instruments, for example, amounted to 16.5 percent (in current prices) (1). The stable demand for high-science products ensured for a long time the relative resistance of the said industries to the cyclical fluctuations of the economy.

However, in 1985, under the conditions of a general economic upturn, the most profound crisis of the U.S. semiconductor industry ever erupted: a fall in production of electronic components of 8.3 percent, including a 15.3-percent drop (in current prices) in the production of semiconductor instruments, which was connected to a considerable extent with the deterioration in the position on the market of electronic computers, was observed in 1985 compared with 1984. Even such powerful concerns as Texas Instruments and Motorola incurred 1985 third-quarter losses of the order of \$83 and \$39 million respectively (2). The stock of semiconductor firms became, as BUSINESS WEEK put it, "pariahs on Wall Street" (3).

The development of "high technology" is being complicated by a number of problems--both typical of all of industry and of specific sectors. The most significant are difficulties of financing capital investments, the shortage of highly skilled specialists, diversion of a considerable proportion of high-science products for military purposes and increased competition on world markets.

The constantly growing capital-intensiveness of the high-technology industries, the high level of expenditure on R&D, risk-attended, what is more, and the reduced prices of certain types of products are moving to the fore the problem of the financing of high-science firms. Specifically, as representatives of the American Semiconductor Industry Association believe, in the 1980's the outcome of international competition in the computer chip sphere will depend primarily on the cost and accessibility for the corporations engaged in the manufacture of the latter.

The personnel problem is awkward. Biotechnology, for example, is experiencing a shortage of biochemist-engineers and specialists in the fermentation field. A program for training students in the "biotechnology" course was introduced only in 1981, and then only by some American colleges. There is a constant "transfer" of college professors to industrial corporations, which makes it possible to alleviate the situation in industry temporarily, but makes more difficult the establishment of a system of specialist training.

Militarization is placing colossal obstacles in the way of the productive use of "high technology". The high-technology product is being applied increasingly in the military sphere, and for this reason a large quantity of material and personnel resources are being diverted from the civilian economy. Many American experts acknowledge that compared with the 1950's-1960's there has been a considerable diminution in our day in the efficiency of the transfer of the results of military research for commercial realization (4). Indeed, the gap between the technical level of military and civilian electronics now amounts, it is estimated, to 10 years and is growing constantly.

At the new stage of the S&T revolution the competitive struggle among the three centers of imperialism is switching increasingly to the sphere of the assimilation of technological achievements. Possessing the most powerful S&T potential in the capitalist world, the United States leads in respect of a number of most important areas of S&T progress. It accounts for approximately 80 percent of the world market for data-processing equipment, whereas Japan accounts for less than 10 percent. The United States is 4-5 years ahead of Japan in the sphere of computer software. On the other hand, OECD experts believe, Japan is firmly established in first place in the capitalist world in terms of the production and use of industrial robots (5). It has succeeded in taking the lead in the development of computer chips also (6). There is essentially not only competition between the two countries on the markets of high-science products--two different approaches to the development of "high technology" are clashing also--Japanese "targeting" and the American model of stimulating S&T progress (7).

Singularities of Government Stimulation

Having run into a number of complex problems, which became exacerbated in the 1980's, the "high-technology" sectors are experiencing an increasingly great need for government support. The concern here is mutual--the development of high-science industries affords the government an opportunity to maneuver in the socioeconomic sphere. The progressive sectors, for example, creating jobs, alleviate unemployment somewhat and contribute to the smoothing over of regional disproportions. Biotechnology is partially solving the energy and raw material problems.

Government support for the "high technology" sectors is complicated by the fact that far from all the traditional regulation methods have a stimulating impact on them. For example, for the firms of these sectors the main sources of outside financing are the attraction of new shareholders or the issue of debentures, while bank credit, inasmuch as the business is usually attended by a high degree of risk (particularly for small pioneer firms), performs a secondary role (8). Consequently, a change in the loan interest rate is not of essential significance for them. Far greater influence is exerted by tax policy stimulating the acquisition of securities.

Even such a proven instrument of S&T policy as patent legislation does not always work. For example, in biotechnology discoveries are being made so rapidly that the patents are obsolete before their official approval even. It is not always that patenting ensures protection against competitors, who obtain similar results by a somewhat modified method, without violating patent legislation. It was necessary at the time of enactment in 1983 of the law protecting monolithic integrated circuits to forgo the principle of patent protection and resort to a modified copyright protection law, equating computer chips with works of literature. All this indicates that the high-technology industries require the formulation of flexible approaches to regulation of their development not bound by a rigid framework.

At times government measures not directly related to S&T policy have a completely unexpected impact on the progressive sectors. We would cite as an example fiscal policy in the 1970's affecting the high-technology industries. As a result of the 1969 tax reform, capital gains tax was increased from 25 to 49 percent, which led to a sharp reduction in venture capital funds and, consequently, made the creation of pioneer firms more complicated. In addition, the issue of options affording company employees the right to acquire its stock at a fixed rate was limited appreciably throughout the latter half of the 1970's within the framework of the tax reforms. For small firms the options were a convenient method of attracting highly skilled specialists, whom they were unable to provide with as high a wage as the large corporations. Thus the tax policy of the 1970's had a negative impact on the position of small high-technology business. True, the lobbying efforts of the Electronics Industry Association led to a reduction in 1978 in the capital gains tax rate to 28 percent, which immediately stimulated "risk" financing.

In connection with the intensification of international competition on the eve and at the outset of the 1980's and the objective need for precise determination of the role of the state at the new stage of the S&T revolution

particular urgency in the United States was attached to the problem of industrial policy. The interest of "high-technology" firms in this question is explained by the widely held opinion according to which the successes of Japanese companies are largely connected with active and diverse government support. As distinct from Japan and France, which have elaborated an official strategy aimed at stimulating the sectors spearheading S&T progress, the United States does not have a national plan or some mechanism of coordinating the activity of the corporations and the federal government which is shaped in any way.

Incidentally, OECD experts have concluded that the U.S. Defense Department is comparable in terms of scale and diversity of forms of intervention in the sphere of R&D with the Japanese Ministry of International Trade and Industry (MITI). However, the economic result from subordination of R&D to the interests of the Pentagon is not comparable with the results of the industrial policy pursued by the MITI, whose purpose is strengthening the competitiveness of Japanese "high technology".

Previously, under the conditions of the United States' practically undivided sway on the world high-science product markets, the lack of a uniform strategy was not reflected in American "high technology". Now, however, the calls for the formulation of a common concept of the development of the progressive industries are becoming increasingly insistent. For example, a report of the Office of Technology Assessments "International Competition in Electronics Industry" says that the future of American electronics will largely depend on the government's approach to national industrial policy and that under the conditions of the Japanese challenge the former methods of stimulating R&D and introducing new technology can no longer be relied upon (9). The well-known American economist L. Thurow believes that the United States should take advantage of Japan's experience in the elaboration of a viable industrial policy based on a unification of the efforts of the government, the corporations and the unions in the spheres of R&D, capital investments, trade and structural reorganization. "Farming out such problems to so-called free market forces means a continuation of the present de facto industrial policy--a set of mutually exclusive tariffs, quotas and subsidies.... Reliance exclusively on the laissez-faire principle in the modern world of most acute competitive struggle means an abdication of responsibility and a prescription for gradual economic recession" (10).

Representatives of sectors experiencing serious long-term difficulties are insisting on the formulation of a version of industrial policy which provides for a strengthening of the coordinating role of the government, subsidies to both the traditional and high-science industries and the creation of new resource redistribution mechanisms.

On the other hand, the dynamic and relatively successful firms of the "high technology" sectors which do not need a whole number of instruments of government support, which are a vital necessity for "smokestack industry," are opposed to increased direct government intervention in the economy. They propose a version whereby resources are redistributed in their favor--they are essentially interested not in the formulation of a uniform strategy but in obtaining the maximum privileges and the removal of obstacles to their

development. High-technology business demands an improvement in the system of technical education; an expansion of federal civilian research in microelectronics; an increase in government subsidies for R&D conducted in the colleges; special tax privileges; a modification of antitrust legislation; a weakening of export controls; and stimulation of the struggle against other countries' protectionism.

A kind of result of this debate was summed up in the economic report of the President for 1984. The R. Reagan administration, it says, is opposed to an increase in government intervention in the country's economic life, believing that industrial strategy in the form in which it is formulated by the representatives of the traditional sectors will not solve the problems confronting the United States but merely bring about new ones. The present difficulties, on the other hand, may be overcome with the aid of an intelligent tax and monetary policy.

Such a concept as a whole corresponds to the demands of the companies of the high-science sectors, whose leaders are insisting on increased government support with reduced administrative interference in their affairs. The concurrence of the interests of the high-technology firms acting the part of locomotive of reindustrialization and being in the eyes of the government the main trump card in the struggle for a strengthening of the United States' military potential and restoration of the country's positions on world markets and of the present U.S. Administration is entirely logical.

New Approaches of the 1980's

"High technology" occupies a leading place in the list of priorities of the Reagan administration, whose efforts are geared to the formulation of special levers of stimulation of the progressive industries. In the 1980's government support is practiced in three main directions: the strengthening of scientific potential, the granting of additional tax privileges and the removal of administrative obstacles to the functioning of the high-technology firms.

Government financing of civilian fundamental research is experiencing the determining impact of the need for austerity caused by the record federal budget deficit. Primarily scientific activity in the traditional spheres is sacrificed: a constant transfer of resources from such spheres of oceanographic, agricultural and social research in favor of the latest fields of mathematics, physics, cybernetics and biology is under way. Austerity policy does not extend to military fundamental research: Department of Defense appropriations for this purpose grew 11 percent in 1986 compared with 1985. Of every \$10 allocated by the government for R&D in 1981, \$6 went on military research; in 1986 this ratio constituted 10:7. The influence of the military departments is particularly strong in the computer field: according to the Office of Technology Assessments, in 1983 the Defense Department accounted for 54.8 percent of government resources allocated for fundamental research in this sphere, and 86.7 percent of applied research (11).

The biggest government research programs of the 1980's in the sphere of computer technology are being carried out by the United States' military departments. The most important is considered the project of the Advanced

Military Research Agency, which is a kind of response by the American Government to the Japanese challenge in the sphere of fifth-generation computers and is being realized within the framework of the so-called "strategic defense initiative". The purpose of this program, which is geared to a 5-year period and put at \$600 million, is research in the field of artificial intelligence, very large integrated circuits and computer architecture.

A system of national supercomputer centers is being created in the United States for further computerization of scientific research: four centers were set up in 1985 at the universities of California (San Diego), Illinois, Cornell and Princeton. They received approximately \$200 million in the form of National Science Foundation (NSF) appropriations for a 5-year period and approximately \$400 million in the form of subsidies from industrialists and state authorities. The next step is the hookup of research workers' PC's to their data banks (the NSF is catering for coordination of the work).

The "Development of Small Business Innovations To Expand the Financial Base of the R&D of Pioneer Firms" Act was passed in 1982. It makes it incumbent upon federal departments whose annual expenditure on R&D is in excess of \$100 million to allocate no less than 1 percent of their budget for financing promising research projects of small firms selected on a competitive basis. In 1982 even 9 small biotechnical firms received \$3.4 million in subsidies.

New directions of government policy with respect to a strengthening of the resource support for science, which are regarded as particularly promising for the high-technology industries, also have appeared in the 1980's. Great attention is being paid to the encouragement of alliances of colleges and industrial firms inasmuch as it is recognized that close relations between them, in biotechnology, for example, have contributed to the transfer of the results of fundamental research to private capital for commercial realization more rapidly than in West Europe or Japan, where such a practice is not widespread (12). These alliances are profitable to both sides as a whole, but many American researchers are worried by the possible damage which will be done to academic science as a result of its subordination to business interests.

"High technology" centers uniting the efforts of colleges, industrial firms and federal institutions such as the center for the development of very large integrated circuits under the auspices of the University of Washington jointly subsidized by five corporations and the Advanced Military Research Agency or the integrated circuit center under the auspices of Stanford University financed by the departments of defense and energy, NASA, the NSF and 19 corporations are being created actively. It is obvious that the directions of the research of the "high-technology" centers are largely subordinated to the interests of the military departments. Correspondingly, this reduces the efficiency of such undertakings from the viewpoint of strengthening the competitiveness of the civilian sectors.

The Republican administration is stimulating the joint research of private firms in spheres of the particularly acute competition of foreign companies and also in the spheres where the fundamental research of individual

corporations is complicated owing to its high cost, prolonged recoupment time, patenting difficulties and so forth. Government regulation of monopolization and competition processes is being eased for this purpose: specifically, a number of laws have been enacted in recent years modifying the United States' antitrust legislation. Companies' joint research projects do not now come within its jurisdiction.

The changes being implemented under the pressure of corporations of the high-science sector are profitable primarily to the major companies of the United States' electronics industry, particularly because the activity of the Microelectronics and Computer Technology and Semiconductor Research associations has been legalized. They were formed by leading firms of electronics industry for joint R&D as a kind of response by the private sector to the Japanese challenge. This is testimony to the increased antitrust movement in the country and the government's endeavor to reduce as far as possible administrative regulation in respect of private capital.

In addition, the implementation of a program of cooperation aimed at encouraging alliances of private companies in the R&D sphere falls within the jurisdiction of the Commerce Department. For American firms this is the most efficient method of resisting the research programs of Japanese consortia, which receive substantial financial support from the state. The Commerce Department has been entrusted with the task of making available the necessary information, exercising general guidance and removing barriers in the way of realization of joint research projects.

A number of tax privileges has been introduced in the 1980's aimed mainly at stimulating the progressive industries. The tax-based Economic Recovery Act (1981) intended a reduction in the tax on profits of the order of 25 percent of companies' additional spending on R&D compared with the average expenditure for this purpose in the preceding 3 years. The results of a special study, however, showed that 57 percent of the firms polled experienced no appreciable positive impact from the concession which had been introduced (13). It was expected that it would be a stimulus precisely to the high-technology firms. However, for them a rapid increase in spending on R&D is a principal factor of survival in the competitive struggle and as such its rate is virtually independent of government concessions. In addition, the 1981 act actually intensified the trend which had taken shape earlier of the relatively higher tax liability of companies of electronics industry compared with the average national level (14). At the same time, however, there is no doubt that the additional reduction permitted firms of electronics industry to reduce their tax payments appreciably and improve their financial situation. As a whole, representatives of the high-science sector consider this measure too modest and are insisting on its extension and a version more favorable to them.

At the time of elaboration of the 1981 tax reform great attention was paid to problems of small business. This is explained on the one hand by the objective process of the stimulation of small pioneer firms in microelectronics and biotechnology. On the other, by the fact that in recent years there has also been an increase in small business' opportunities for putting pressure on the government thanks to the strengthening of its organizations--the electronics and semiconductor industry associations.

In the course of the reform the capital gains tax rate was lowered from 28 to 20 percent, which undoubtedly corresponded to small companies' interests. This measure also affords the large corporations an opportunity to make profitable use of new paths of interaction with small business like, for example, "limited research partnerships". In 1983 even the influx of private capital into biotechnology industry via the system of such partners amounted to \$500 million (15).

The issue of stock options has been simplified in the 1980's under the pressure of the small high-science firms. The first biotechnology firm to avail itself of this privilege was Genentech, establishing for the purpose of attracting leading specialists in the sphere of biotechnology and their increased personal interest in the company's affairs inexpensive securities sold predominantly to new employees. At the present time they extend to practically all persons employed in the firm.

Besides strengthening the financial base of science and granting the high-science firms tax concessions, the government, creating conditions conducive to the functioning of private capital, is also taking the path of an easing of administrative regulation of entrepreneurial activity. Administration policy in respect of genetic research safety control, for example, testifies to this. The need to prevent an escape of microorganisms obtained by recombinant DNA methods is generally recognized at the present time. However, the lack of a clear-cut regulation policy and various interdepartmental barriers frequently lead to a delay in the commercial realization of biotechnology products. Thus authorization for the production of two preparations for farm animals developed by Genentech was delayed a year owing to disagreements between the FDA and the Agriculture Department.

A work group was set up in 1984 headed by the Scientific Policy Office and consisting of representatives of 15 departments, including the State Department, Commerce Department, Department of Health and Human Services, the Environmental Protection Agency and others. Its mission was to determine the adequacy of the existing laws and rules of the need to protect the population against the potential consequences of experiments in the field of genetic engineering. However, the work group's attention was concentrated on observance primarily of the interests of the American biotechnology industry companies. It endeavored to ensure that "excessively" strict control not force the firms to transfer their activity overseas and not undermine American biotechnology's competitive positions. As a result a decision was adopted not to formulate additional laws.

In the United States control of biotechnology products is exercised by the administration, the Agriculture Department and the Occupational Safety and Health Review Commission. The administration categorizes as "new" all medicinal and biological preparations created by gene engineering methods, even if they correspond fully to traditional products. As a result additional clinical tests are necessary, which increases the costs of the medicines considerably and delays commercial realization inasmuch as the administration's "approval" procedure takes on average 2-7 years.

In addition, the administration has the right to control the exports of certain biological preparations. In the opinion of business circles, the administration's rules are reflected negatively in America's foreign trade. An active campaign is being conducted currently to ease the export restrictions on biotechnology products. Exports of preparations not yet officially approved by the government, but deemed harmless as a result of the corresponding research will apparently be authorized. Furthermore, according to the new regulations, the administration will be able to approve medicines on the basis of foreign clinical experiments conforming to American standards. It is expected that this should shorten the preparation "approval" procedure to 6 months and reduce paper turnover by at least 70 percent.

So in the 1980's the U.S. Government has recognized as clearly as can be the need for the intensive stimulation of the "high-technology" sectors for the purpose of retaining economic and S&T leadership in the capitalist world. After all, it is the level of development of "high technology" which is determining the "character" of the country's economy in our day and the prospects of its future development. The stimulation of official policy in the sphere of the progressive industries has been a convincing refutation of the theorists of a neoconservative persuasion who asserted that "free market forces" are themselves capable of providing for the structural reorganization of the U.S. economy.

FOOTNOTES

1. See "1986. U.S. Industrial Outlook," Washington, 1986, 32-11.
2. Ibid., 32-2.
3. See BUSINESS WEEK, 18 August 1986, p 61.
4. BUSINESS WEEK, 11 March 1985, p 46; it is indicative that even in those years, despite the colossal government appropriations for military R&D, the most important scientific discoveries in the field of semiconductor technology such as transistors or microprocessors were made within the framework of projects financed by firms independently, and only then were their results used by the military departments.
5. BUSINESS WEEK, 16 July 1984, p 61; THE OECD OBSERVER, November 1984, p 5.
6. In 1979 Japanese companies' share of the world capitalist 16K computer chip market was in excess of 40 percent; in 1982 they possessed approximately 70 percent of the world market of the latest type of semiconductor instruments--64K. In 1985 all American firms aside from Texas Instruments and Micron Technology had been squeezed out of the production of 64K computer chips as a result of the competition of Japanese companies; in 1986 world leadership was captured by Nippon Electric, Hitachi and Fujitsu.
7. Many American economists recognize that Japan has scored its biggest success precisely in the "targeted" sectors. "Targeting" policy was implemented in automotive, steel and shipbuilding industry; in the 1980's

the accent has shifted to such key spheres as microelectronics, biotechnology and robotics. The essence of "targeting" consists of a concentration of efforts in a small number of sectors, their intensive stimulation and the subsequent transition to new "targets". Japan imports advanced Western technology, perfects it--with the use of government subsidies for R&D included--then protects the sector from foreign competition on the domestic market. Having accumulated the necessary experience and achieved "economies in scale" and reductions in the price of the developed products, Japanese firms move onto the world markets with commodities which frequently have qualitative and price advantages. As a result they have an opportunity to capture a considerable share of the market. It is this practice which has prevailed in Japan, at least until recently. American experts note that this strategy, "refined" to the highest degree, precisely coordinated and brilliantly executed, is based primarily on the cooperation of the government and industry.

8. According to the estimates of American experts, in the period 1970-1979 the relative significance of bank loans in the external financing of semiconductor firms was practically three times less than the proportion of the sale of stock or the issue of debentures (see, for example, "Competitive Edge". Edited by D.I. Okimoto, T. Sugano and F.B. Weinstein, Stanford (Calif.), 1984, p 142).
9. See RESEARCH AND DEVELOPMENT, January 1984, pp 49-50.
10. BUSINESS WEEK, 9 December 1985, pp 7, 8.
11. See CHEMICAL AND ENGINEERING NEWS, 20 January 1986, p 4; NEW SCIENTIST, 24 January 1985, p 24; DATAMATION, August 1984, p 34.
12. The biggest alliance at the present time is considered to be the agreement between the Monsanto concern and the University of Washington concluded in 1982, within the framework of which the firm allocates \$23.5 million for 5 years for research in the field of proteins and peptides, the results of which may be used for the treatment of arthritis, hypertension and immune diseases (A. Sasson, "Biotechnologies: Challenges and Promises," Paris, 1984, p 279). In the United States altogether 46 percent of biotechnology firms, encouraged by special tax concessions, are concluding agreements with the universities (see SCIENCE, 17 January 1986, p 243).
13. It is estimated that this privilege has contributed to an increase in appropriations for R&D of no more than 2 percent a year (see DUN'S BUSINESS MONTH, March 1986, p 2).
14. In 1981 the average actual rate of tax on the income of U.S. companies was 18-21 percent, but for the manufacturers of computers and office equipment, 25-28 percent. In 1982 the rate declined for industry on average to 16.6 percent, but for the manufacturers of computers and office equipment, to 26.5 percent (DATAMATION, March 1984, p 93).

15. SCIENCE, 3 February 1984.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

EVOLUTION OF WEST EUROPEAN-SOVIET ECONOMIC TIES

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 87-94

[Article by Yu. Andreyev: "European Direction of the USSR's Foreign Trade Activity"]

[Text] The CPSU Central Committee Political Report to the 27th congress emphasized that "the CPSU considers a principal direction of its activity the European direction. The historic opportunity of Europe and its future lie in the peaceful cooperation of the states of the continent." The party program also emphasizes that "the CPSU attaches great significance to the further development of the peaceful good-neighborliness and cooperation of European states."

Conditions and Prerequisites of Cooperation

Our common European house has accumulated considerable experience of peaceful, mutually profitable cooperation. Back in 1920 V.I. Lenin observed that "Europe will be unable to stand on its feet without Russia" (1). It was for a whole number of historical reasons in Europe that a relaxation of international tension sank deep roots. This period began as of the latter half of the 1960's, when positive changes occurred in the USSR's relations with France and the FRG.

The relaxation of international tension as a particular condition of the system of international relations represents a complex interweave of political, military and economic elements. Economic cooperation constituting the material fabric and base of detente communicates to the political sphere and, in turn, receives from it impetus to the development of positive trends.

Such a course of events occurred in the 1970's, particularly in the first half thereof. The pinnacle of political detente was the Conference on Security and Cooperation in Europe in 1975. The Final Act signed in Helsinki represents a code of the peaceful coexistence and cooperation of states with different social systems, a code of detente.

Certain measures pertaining to the realization of military detente agreed in the course of negotiations between the USSR and the United States in the

1970's also exerted a salutary influence on the entire set of East-West relations. Thus the political sphere created conditions conducive as a whole to the development of economic cooperation, primarily on the European continent.

As of the end of the 1970's detente entered a period of "ebb". On the eve and at the outset of the present decade the purpose of the strategy of aggressive circles of the United States and its NATO allies was an endeavor to break up the military-strategic parity which had taken shape between the USSR and the United States and the Warsaw Pact and NATO, and to achieve military superiority to the socialist countries. The United States' persistent preparations for a dangerous step with unpredictable consequences--the militarization of space--are under way.

The world is experiencing a tense period of struggle of the two opposite trends in international relations. Under these conditions the Soviet Union and the other socialist countries are doing everything possible, taking their parties' program documents as the basis, for a radical improvement in the international situation, peace, international security and mutually profitable cooperation.

As M.S. Gorbachev observed, "the concept of 'detente' was born in Europe.... Much of what was built on this foundation has been destroyed by the icy winds from across the ocean. But much also has held out, survived and sunk strong roots and is of tangible benefit to the peoples" (2). Testimony to this were the Madrid and Vienna meetings and the successful completion of the Conference on Confidence-Building Measures, Security and Disarmament which was held in Stockholm. Negotiations on various questions of arms reduction are continuing in Vienna and Geneva.

The numerous agreements and arrangements in the political, military and economic spheres arrived at in the 1970's and which are in effect currently constitute the basis of the entire system of detente. The socialist community countries advocate a continuation of the process of the establishment of peaceful, mutually profitable cooperation between states with different social systems. It should be noted that in West Europe also there is a whole number of states whose governments today also adhere to a policy of constructive cooperation. The antiwar movement is strengthening. However, the situation in the political and military spheres remains tense, which cannot fail to be reflected in East-West economic relations also.

The approaches to these relations in Western countries may be reduced to two main versions. The first are the concepts of those who advocate a curbing or limiting of economic relations. The main place among them is occupied by the theory of "linkage" or connection, which is particularly popular in the United States, but which has supporters in West European countries also. The essence of this approach is a policy of the complete subordination of economic relations to politics, that is, the West's achievement of its political and military-political goals. The supporters of this theory (H. Kissinger and others) differ somewhat from the disciples of a "hard line" (C. Weinberger, R. Perle, Z. Brzezinski, G. Adler-Carlson and others), who advocate the complete abandonment of all relations altogether. But both are prepared to make active

use in policy of acts of economic aggression (embargoes, sanctions and so forth), which, as is known, is being done by the U.S. Administration.

The second version is represented by concepts of interdependence, "attachment of countries to the world economy" and the "new concurrence of interests". Numerous supporters of these concepts in West Europe (for example, M. Lavine and T. de Montbrial in France, O. Wolf von Amerongen, [Yu. Nettsold], G. Vogel and [P. Pissul] in the FRG, G. Agnelli in Italy, J. Tinbergen in Holland and A. Hammer in the United States) proceed from recognition of the principles of peaceful coexistence and the need for the development of relations, for the increased degree of East-West economic interdependence and the safeguarding in this way of peace and international security included. They reject "economic warfare" as a means of solving foreign policy problems, but recognize the leading role of political factors in the development of East-West relations.

The essence of the Soviet approach is that, while recognizing the interconnection of economic and political relations, it does not rule out a certain autonomy of the development of the first inasmuch as objective regularities of economic development are the deep-lying basis thereof. In other words, the USSR is opposed to absolutization of the influence of policy on East-West economic relations.

"After all, the most urgent, vital and practical interests of all capitalist powers, which have been revealed sharply in recent years," V.I. Lenin wrote, "demand the development, regulation and expansion of trade with Russia. And since such interests exist, we may argue, we may squabble, we may disagree in different combinations--it is even highly likely that we will disagree--nonetheless, ultimately this basic economic necessity is blazing a trail for itself" (3).

V.I. Lenin regarded the development of Russia's trade with the West as the result of the action of two closely interconnected factors--objective necessity and the mutual interest of economic agents in the establishment of relations as a consequence of the profitability of the latter. The action of these factors was so strong that V.I. Lenin deemed the severing of economic relations impossible. He wrote about trade "which has begun, which is progressing and which, even were someone to forcibly suspend it for some length of time or other, will for all that following this interval inevitably develop" (4). These words of Lenin's are pertinent today also.

The basis of the objective need for the economic relations of states with different social systems are the development of the productive forces, the worldwide division of labor and the internationalization of economic life brought about by them and increased by the S&T revolution. V.I. Lenin regarded Soviet Russia's relations with the West in the context of the worldwide economy and worldwide economic relations. His classical assessment: "There is a force greater than the desire, will and decision of any hostile government or class, this force is general economic worldwide relations, which are forcing them to embark on this path of relations with us" (5), is well known.

Tremendous significance is attached to deep-lying, objective economic regularities and trends, which link the two opposite systems in an

antagonistic unity. These are regularities which are largely common for all systems and modes of production. It is a question primarily of the law of the progressive development of the productive forces, which is closely connected with the regularity of the growth of the social productive force of labor.

An absence of economic relations of the opposite social systems and their isolation would mean the impossibility of a global division of labor which is efficient in any way, and would cause numerous instances of duplication and unnecessary expenditure of time and resources to achieve results already obtained by the other side. Artificial restrictions would arise in the way of the internationalization of economic life. All this would impede the development of the productive forces of the two systems.

A most important connecting element of the worldwide economy and the objective basis of the development of East-West economic relations is an extension of the division of labor. It forms the worldwide economy as an antagonistic unity of two opposite systems of the international division of labor--capitalist and socialist. It is the further division of labor on a global scale which is leading to the internationalization of economic life, which is a general trend, although is operating dissimilarly under socialism and capitalism.

The internationalization of economic life has been increased many times over thanks to the S&T revolution, the prodigious socialization of production and the appearance of global problems, for whose solution the cooperation of many countries is essential. The process of internationalization is stimulating relations between countries, between East and West included, and developing them in breadth and in depth. Foreign trade and commodity exchange are being supplemented by new and most recent forms of economic relations.

Importance is attached to the question of the nature of the processes of the extension of the worldwide division of labor and the internationalization of economic life under current conditions. Certain Western economists with a positive attitude toward the development of East-West economic cooperation substantiate the division of labor, the internationalization of economic life and the inevitability of economic relations to a considerable extent by postulates of the "comparative costs" theory (6). It is an adequate explanation of the development of intersectoral exchange, in our view.

Now, however, far greater opportunities are afforded by intrasectoral specialization. An explanation of its regularities forces us to address mainly the theory of the worldwide division of labor, a most important component of which is the proposition concerning the close interaction of the general, particular and individual division of labor (7). The latter, incidentally, affords extensive prospects for production cooperation, East-West included. The international division of labor determines to a tremendous extent at all levels the formation of reproduction proportions in each country, particularly in relations between industrially developed states.

An analysis of the objective need for relations would be incomplete without an indication of their mechanism. The basis of this mechanism, in our view, is the law of value.

A most important prerequisite of East-West economic cooperation is the interest of both sides noted by V.I. Lenin even based on the mutual profitability of this cooperation. It is very important that cooperation not encroach on the foundations of the opposite systems and not affect the spheres of action of specific economic laws of the formation, which is particularly important politically. The Western figures who see this cooperation either as the way of the convergence of the two systems or as an opportunity for exporting the production relations of either of them are profoundly mistaken.

The West European countries derive considerable economic benefits from economic cooperation with the USSR and the other socialist states. There is primarily a broadening of the opportunities for the marketing of their products, which is always important, but particularly in periods of economic recessions. The orders of the USSR and the other socialist countries, according to many estimates, provide jobs in the industrially developed states for approximately 2 million persons. This means that currently, when unemployment is, perhaps, the most severe socioeconomic problem of the capitalist world, East-West cooperation is mitigating its seriousness.

West Europe is interested in obtaining from the Soviet Union raw material and energy resources within the framework of intersectoral specialization and exchange. In the opinion of a number of Western experts, this exchange is also contributing to the solution of such an important structural problem of West Europe as the energy problem. Economic cooperation along foreign trade lines and, particularly, new forms of economic relations could make a notable contribution to the solution of many other structural problems.

Having organized S&T exchange with the Soviet Union, the West European countries, specialists believe, could derive tangible benefits and a saving of expenditure on R&D, thereby enhancing their competitive positions under the conditions of acute technological rivalry. It is important to emphasize once again that many West European countries see an expansion of economic relations with the USSR as making political sense also, rightly linking political and economic factors of a relaxation of international tension.

East-West economic cooperation is, of course, of benefit to the Soviet Union also. Its participation in the international division of labor enables it to raise the S&T level and efficiency of the economy and save appreciably in respect of time and material and labor resources. Foreign trade is, as M.S. Gorbachev observed, "a powerful accelerator of S&T and economic development" (8). East-West economic relations are helping to a certain extent to accomplish the task of an intensification of the national economy. The Soviet Union's position, which is geared to the development of mutually profitable cooperation with Western countries, was precisely set forth at the 27th CPSU Congress, primarily in the Political Report.

Analyzing the complex interconnection of political and economic aspects of the USSR's relations with West Europe, we cannot lose sight of the following important point also. An appreciable influence on intersystem economic relations is exerted not only by the political but also economic "environment". The latter includes the situation in the economy of both our Western country partners and the USSR.

The comparatively rapid economic growth of practically all capitalist countries up to the mid-1970's created favorable prerequisites for East-West economic relations also. The 1974-1975 crisis did not contribute to the development of these relations, but nor was it able to impede them appreciably. However, the profound crisis which hit the entire capitalist world at the start of the 1980's had an exceptionally unfavorable impact on economic relations. There was a sharp reduction in demand for Soviet export products. A new wave of protectionism arose.

Appreciable difficulties for the development of relations with the capitalist countries arose owing to the policy of Western governments under the thumb of the U.S. Administration in the sphere of the control of exports to the socialist countries and also the granting of official export credit. As far as the Soviet economy was concerned, its progressive development had created a reliable material base for the USSR's foreign economic relations. However, as the CPSU Central Committee Political Report to the 27th congress observed: "...difficulties began to increase in the economy in the 1970's and there was a marked reduction in the economic growth rate." All this could not have failed to have influenced the Soviet Union's foreign economic relations, with Western countries included. This occurred, specifically, because the solution of urgent problems of the growth and diversification of the country's export potential was postponed.

As a whole, it may be noted that in the detente period the political and economic conditions of intersystem economic relations took shape auspiciously, but became noticeably more complex as of the end of the 1970's.

Evolution of Economic Relations

As can be seen from the table, the West European countries are the USSR's main partners in the capitalist world. Their share has constituted in recent years approximately four-fifths of the Soviet Union's total foreign trade turnover with the industrially developed capitalist states, 80 percent in 1985.

The USSR's Commodity Turnover With Groups of Countries

(1) Группы стран	1950 г.		1960 г.		1970 г.		1980 г.		1981 г.		1985 г.	
	(2) млн. руб.	%	млн. руб.	%	млн. руб.	%	млн. руб.	%	млн. руб.	%	млн. руб.	%
Развитые капиталистические страны (3)	440.2	15.1	1 917.3	19.0	4 694.2	21.3	31 583.1	33.6	40 923.5	29.3	37 847.0	26.7
(4) в том числе												
(5) Западная Европа	356.1	12.2	1 650.4	16.4	3 668.7	16.6	25 403.2	27.0	32 906.8	23.6	30 322.2	21.4
(6) Социалистические страны	2 372.8	81.1	7 370.8	73.2	14 403.1	65.2	50 552.5	53.7	80 326.3	57.5	86 492.9	61.1
(7) Развивающиеся страны	112.5	3.8	783.0	7.8	2 981.3	13.5	11 961.7	12.7	18 461.2	13.2	17 225.7	12.2
(8) Всего	2 925.5	100.0	10 071.1	100.0	22 078.6	100.0	94 097.3	100.0	139 711.0	100.0	141 565.6	100.0

Key: 1. Groups of countries. 2. Rubles, millions. 3. Developed capitalist countries. 4. Including. 5. West Europe. 6. Socialist countries. 7. Developing countries. 8. Total.

Calculated from "The USSR's Foreign Trade" for the corresponding years.

The 1970's mark the start of a new stage in the development of the USSR's economic relations with West Europe and with all the industrially developed capitalist countries. Economic relations switched to a long-term legal basis, a most important part of which were intergovernmental agreements and programs extending 10 years and more. New fields and forms of economic cooperation going beyond the framework of customary trade were developed extensively: economic cooperation or joint investment activity, on a compensatory basis included; production cooperation; S&T cooperation. The entire system of credit-financial support for economic relations moved ahead noticeably. The first successes were scored in the sphere of cooperation on a multilateral basis (9).

By the start of the 1980's the political and economic conditions of economic relations had, as observed earlier, become complicated and less auspicious to a large extent. Absolutizing the influence of political factors on East-West economic relations, the majority of bourgeois specialists began to talk about the inevitable and immediate onset of the stagnation or crisis even of these relations. However, right up until 1985 the USSR's trade turnover with the West European countries, as with the entire group of industrially developed capitalist states, continued to increase.

As is known, a decline in the oil price began as of March 1983, which caused a marked deterioration in the USSR's trade conditions, particularly with the capitalist countries. Nonetheless, the growth of turnover, which was secured by an increase in the physical volume of trade with this group of countries, continued in 1983 and 1984. Thus the essential independence of economic relations and the intrinsic logic of their growth based on objective regularities of world economic development and the partners' mutual benefits in the economic and, no less important, foreign policy spheres were manifested in these years.

A variety of difficulties led at the start of the 1980's to a slowing of the growth, and in 1985, to an absolute decline in the USSR's commodity turnover with West Europe, as with the developed capitalist states as a whole--by R2.6 billion and R3.1 billion rubles respectively. What had predetermined such a development of events? Answering this question, we have to mention the destructive role of the policy of the U.S. Administration and its aggressiveness in international affairs, which increased particularly as of the end of the 1970's--start of the 1980's. The United States is endeavoring to enlist its West European allies more actively in participation in actions hostile in respect of the USSR and the other socialist countries.

The offensive against East-West economic relations is proceeding in many directions. Specifically, there is a tightening of the CoCom terms, the list thereof is being extended considerably and new monitoring bodies are being set up (the meeting of security and technology experts, for example, which has

been operating since October 1985). As is known, the CoCom includes all NATO members, aside from Iceland, and also Japan. It should be noted here that the United States is also attempting to establish control over trade between the USSR and West European states which are not a part of the CoCom, neutral states (Austria and Sweden, for example) included.

An important direction of the United States' foreign economic policy is discrimination against the socialist states in the credit sphere. The increase in the minimum interest rate on government credit and export credit subsidized by the government within the framework of the notorious "consensus" was aimed at creating difficulties for credit and, consequently, economic relations in general of the USSR with the West. However, the Americans achieved no particular successes in this field.

One further direction is attempts to restrict supplies from the USSR of so-called strategic commodities, energy resources primarily, for the purpose of reducing the alleged dangerous dependence of West European countries on the USSR in this sphere. The West European states do not agree with this for the proportion of the supplies of Soviet energy resources in consumption (5-7 percent) is extremely far from the "critical level of dependence" calculated by the Americans themselves (18 percent).

Naturally, the Soviet Union rejects this discriminatory approach of aggressive circles of the United States and the NATO countries to East-West economic relations. It was said clearly at the 27th CPSU Congress that "cooperation is a reciprocal business. What is needed here is a strict consideration of mutual interests and a complete renunciation of all restrictions, boycotts and embargoes, whose organizer is the United States. Economic relations in the modern world may be built only on a basis of equality, on trust and on strict compliance with mutual arrangements. Operating contrary to this, subordinating trade and economic relations to unseemly political calculations, is tantamount to attempting to hold back world progress. Historical experience has shown the utter groundlessness of such attempts."

However, it has to be observed that the main reason for the reduced volume of the USSR's economic relations with the developed capitalist states is to be found, nonetheless, in the economic sphere. The situation on the world energy sources market, which is distinguished by a pronounced excess of supply over demand (which has led to the sharp fall in the price of oil, particularly as of November 1985), led to a reduction in Soviet exports to West Europe by almost R2.9 billion in 1985.

The situation which took shape immediately illuminated also bottlenecks of the USSR's relations with the West highly sensitive for our economy. These were primarily the structure of Soviet exports to West Europe and the West in general. In 1985 they had consisted of energy resources to the extent of 81 and 77 percent respectively, of oil and petroleum products to the extent of 61 and 57 percent included.

The party and government emphasize the need for an increase in the USSR's export potential, its broad diversification and an improvement in the structure of Soviet exports. A very important part in this connection is to be

played by an increase therein in the proportion of machinery, equipment and means of transport and their increased competitiveness. The measures adopted by the CPSU Central Committee and USSR Council of Ministers pertaining to an improvement in the management of foreign economic relations are aimed at a fundamental restructuring of foreign economic activity in the spirit of the decisions of the 27th CPSU Congress. The considerable broadening of the rights and responsibility of enterprises is to increase the interest of the manufacturers of the products in an increase in the production of highly competitive goods for export and also the more efficient use of imported resources and possibilities.

Trade remains the main connecting link in international economic relations, but its functions have undergone appreciable changes. It is now mediating increasingly important East-West economic relations going beyond the framework of simple commodity exchange transactions. The intermingling of trade and the new areas of economic cooperation, which begin in the S&T sphere and cross to the investment sphere, and from it, to the production sphere, is increasingly close. In particular, cooperation is being realized on the basis of division of the production program, and then, joint marketing, including service, although this cycle of East-West economic cooperation is encountered very rarely as yet.

The most progressive direction of economic cooperation, we believe, is production cooperation. It is this interaction and cooperation in the production process which best helps adaptation to the demands of the world market in respect of all parameters of competitiveness. As of the present time the USSR and other CEMA countries have concluded with firms of the capitalist countries, of West Europe mainly, more than 2,000 cooperation agreements. Production cooperation accounts for only half of these agreements approximately. It is developing most actively with companies of Finland, the FRG, Austria, Sweden and France.

Twenty-three agreements have been signed and are being implemented with Finland, for example, and a further 25 are at the preparation stage. An example of successful cooperation is the manufacture by the Novocherkassk Electric Locomotive-Building Plant and the Stremberg Firm of SR-1 electric locomotives, which have given a good account of themselves in Finland, the USSR and third countries. Cooperation has been organized in the production of paper-making machinery. Soviet equipment is being installed on ships manufactured in Finland to Soviet orders.

The Long-Term Program of the Development and Extension of Trade and Economic, Industrial and S&T Cooperation Between the USSR and Finland outlines 85 specific fields of production cooperation and specialization, the bulk of which is at the stage of critical analysis by Finnish firms and Soviet organizations. The production of equipment for the exploration for and development of the resources of the continental shelf and for nuclear-powered icebreakers and nuclear and thermal power stations are promising directions.

However, according to available estimates, joint-labor supplies constitute a modest share of East-West commodity turnover. Use is being made of far from

all opportunities for the more extensive development of a promising direction of the USSR's economic relations with Western countries.

Nor have investment cooperation or joint capital construction, including cooperation on a compensation basis, exhausted their potential. The latter has withstood the particularly tough pressure of opponents of the development of East-West economic relations. The "gas for pipes" project may serve as a striking example of the vitality of the idea of compensation. The main principle of cooperation--mutual benefit--may be clearly traced therein. The Western partners acquired a large market for their products (pipes, compressor stations and so forth) and began to receive gas which they needed. The Soviet Union, in turn, thanks to the sale of the gas, secured for itself considerable currency proceeds.

S&T cooperation with West European countries is developing successfully. It is based on a system of agreements and programs, which consists of two elements: intergovernmental agreements and programs and also cooperation agreements between Soviet organizations and leading firms of the capitalist world.

Particular importance is attached to the credit-finance sphere. The attempts to limit economic cooperation via credit levers, with the aid of the above-mentioned "consensus" included, produced no success for its organizers. Even despite the unfavorable dynamics of the world prices of energy resources, the Soviet Union is regarded as a respectable, reliable partner in East-West credit and, altogether, trade relations. Any obstacles which are erected in the West in this sphere ultimately redound to the disadvantage of those who erect them.

There has been a stimulation in recent years of the USSR's credit relations with Western countries. A new element is the Soviet Union's use as a credit currency of the ECU--the currency unit created by the participants in the European Currency System within the framework of the EC. The USSR Vneshtorgbank has obtained a number of sums of credit in ECU from Italy and Sweden. Corresponding accords have been reached with French representatives.

Very great significance is attached to the development of an entirely new type of intersystem economic cooperation--joint ventures on Soviet territory. The first agreement in this sphere has already been signed: on the building of a hotel between Finnair and the Intourist All-Union Joint-Stock Company. The question of the organization in the USSR of a whole number of such joint ventures with firms of West European companies is on the agenda.

Speaking of the European direction of the USSR's foreign policy activity, we have to dwell also on our country's active participation in such a new type of East-West relations as multilateral cooperation. The Soviet Union and the CEMA members are interested in bilateral relations being supplemented by cooperation on an all-European scale. Certain experience has already been accumulated: multilateral cooperation is developing quite successfully in the sphere of environmental protection, and negotiations are being conducted on the establishment of ties in the power engineering field. This line of the socialist states' economic diplomacy was confirmed in the decisions of the

top-level CEMA economic conference in Moscow (June 1984) and the new initiatives of CEMA and the USSR aimed at the establishment of official relations between CEMA and the EC.

The USSR's foreign economic relations with West European countries, as with all industrial capitalist states, are undergoing a difficult period. A certain independence of the development of this sphere in relation to political factors was demonstrated convincingly at the start of the 1980's. In 1985 the scale of cooperation diminished under the impact of the sum total of political and economic factors. An improvement in the economic situation could once again lead to a resurgence of East-West economic relations, given a certain lag, up to certain limits, of course, of the level of political relations. As far as the political "environment" is concerned, the Soviet side is doing everything possible to improve it. Questions connected with this were discussed at the talks between M.S. Gorbachev, general secretary of the CPSU Central Committee, and French President F. Mitterrand in Paris (October 1985) and Moscow (July 1986), at the negotiations with FRG Foreign Minister H.-D. Genscher in Moscow (July 1986), during USSR Foreign Minister E.A. Shevardnadze's visit to London (July 1986) and in the course of other contacts, at the highest level included.

The Soviet leadership sees as its most important foreign policy goal the safeguarding and strengthening of peace and international security. It was our party which elaborated the concept of an all-embracing system of international security, an important step en route to which is detente. As M.S. Gorbachev observed, "detente, from our viewpoint, is not the final aim of policy. It is an essential, but merely transitional stage from a world overburdened with weapons to a dependable and all-embracing system of international security" (10). This most important proposition was further developed in the CPSU Central Committee Political Report to the 27th congress. The creation of such a system presupposes a wide range of measures in the economic sphere also.

Party documents attach tremendous significance to detente on the European continent. As M.S. Gorbachev's 15 January 1986 statement said, "...a considerable proportion of the new Soviet initiatives is addressed directly to Europe. A special mission could fall to its lot in the realization of an abrupt changeabout toward a policy of peace. This mission is the new building of detente." The USSR's economic relations with the West European states could and should be a foundation of this new building.

FOOTNOTES

1. V.I. Lenin, "Complete Works," vol 40, p 153.
2. M.S. Gorbachev, "Selected Speeches and Articles," Moscow, 1985, pp 90-91.
3. V.I. Lenin, "Complete Works," vol 45, p 71.
4. Ibid., p 72.
5. V.I. Lenin, "Complete Works," vol 44, pp 304-305.

6. See, for example, "Finnish-Soviet Economic Relations," London, 1983, pp 3-20.
7. It is legitimate, in our view, to interpret the general division of labor as the division of labor between the main spheres and sectors of the national economy; particular, within sectors; and individual, within enterprises or within the framework of production processes.
8. M.S. Gorbachev, "Selected Speeches and Articles," p 120.
9. For more detail see "Materialization of Detente: Economic Aspects," Moscow, 1978; "New Stage of the USSR's Economic Cooperation With the Developed Capitalist Countries," Moscow, 1978.
10. M.S. Gorbachev, "Selected Speeches and Articles," p 61.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

REALITY AND PROSPECTS FOR ARMS CONTROL

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 114-125

[Article by V. Avakov: "Arms Control: Reality and Prospects"]

[Text] Problems of arms control occupy a central place in Soviet-American relations. Confrontation in the military sphere is the most dangerous section of the entire system of relations between the two biggest world powers. Not only the security of the United States, the USSR and their allies but of the international community as a whole depends on the state of affairs in this sphere. As the interdependence of the world grows, there is an increase also in the degree of the impact of the military rivalry of the two countries on the problem of war and peace in its global formulation. It is not fortuitous, therefore, that questions connected with the race in arms, their limitation and control over them are illustrated extensively in the American press--both in the periodical and that which it is customary to call the "academic" press. The latter is distinguished primarily by the thoroughgoing nature of the material. This evaluation is applicable as a whole both to articles calling for arms control and justifying--directly or indirectly--Washington's continued buildup of military power.

Such journals as FOREIGN AFFAIRS, FOREIGN POLICY, ORBIS, DAEDALUS, INTERNATIONAL SECURITY and a number of others stand out among organs of the American academic press. The most authoritative of them, perhaps, is the journal FOREIGN AFFAIRS, which is issued five times a year by the New York Council on Foreign Relations. The monthly ARMS CONTROL TODAY, which specializes directly in questions connected with arms control, has attracted attention by its articles in recent years. It is published by the Arms Control Association, an independent nongovernment organization made up of prominent American specialists in the military sphere which was formed in 1971. Chairman of the association is G. Smith, formerly leader of the American delegation at the SALT I negotiations, and members of the board of directors include such well-known figures as R. McNamara, P. Warnke, M. Shulman, Adm N. Gaylor, S. Kinney, M. Goldberg, T. Hughes and D. Yankelovich.

The majority of American journals publishing material on international topics adheres to the long-established tradition of not identifying themselves and the organizations financing them with the authors' ideas and concepts, which,

publishers and editors believe, should serve as testimony to their impartiality. "The articles in FOREIGN AFFAIRS," the journal's editors caution the readers in every issue, "do not represent a unity of viewpoints. We do not expect readers of the issue to agree with everything to which they are introduced inasmuch as some of our authors emphatically disagree with others, but we firmly believe that, not admitting merely someone's whims, FOREIGN AFFAIRS may do more to inform American public opinion by making available its pages for the expression of disparate ideas than identifying itself with any one school." Indeed, if one wishes, one may find a broad spectrum of political views and contrary opinions in the same journal. However, one circumstance should be noted for the sake of objectivity. Despite all the conceptual, factual and other differences between the authors of various articles, it is an "American" view of things as a whole. Not to mention the fact that the appearance in the above-mentioned journals of material of Soviet authors is an exceptionally rare phenomenon, their readers manifestly experience a lack of information about the Soviet Union and its foreign policy initiatives and actions. The United States' academic journals, in no way different in this respect from organs of the periodical press, in fact passed by in silence, for example, such an important aspect of the arms control problem as the Soviet moratorium on nuclear testing.

The year of 1986 was largely pivotal in the Soviet Union's struggle for an improvement in the international climate, a halt to the arms race and for disarmament. The specific and realistic program for the elimination of nuclear weapons before the end of the century presented on 15 January by M.S. Gorbachev, the concept of an all-embracing system of international security formulated by the 27th CPSU Congress and other peace-loving initiatives reflected the shoots of the new political thinking which had taken shape in the Soviet Union and the Soviet leadership's practical readiness to achieve solutions of complex problems in the sphere of the military confrontation of the two great powers. The bold steps of the Soviet Union are constantly running into the obdurate, preserved stereotypes of thinking characteristic of the U.S. Administration. The position occupied by the United States in Reykjavik caused particular disappointment.

The militarist fever which has gripped the R. Reagan administration is impeding progress along the path of disarmament. This is causing serious concern not only in international circles but also among a large number of American politicians, congressmen and scholars. This has been shown unambiguously by the first session of the 100th U.S. Congress, which opened on 6 January 1987. Three bills have been introduced in the House conflicting in one way or another with the plans of the R. Reagan administration. One provides for preservation of the ban on the testing of antisatellite weapons, another for a return to compliance with the SALT II Treaty and the third demands a limitation of the yield of nuclear explosions conducted by the United States. Although all these initiatives were approved back in the fall of 1986, succumbing to pressure on the part of the White House, which called on the legislators to demonstrate unity with the administration on the eve of Reykjavik, the House of Representatives nonetheless decided to wait a little before passing them. The return to them right at the start of the year showed, first, that arms control will be given priority attention by American congressmen and, second, that there are definite differences on this question

between the executive and legislature in the United States. Serious doubts concerning the soundness of the administration's policy on arms control issues are being voiced in the country's academic circles also.

It is significant that the majority of specialists on this question, excluding representatives of the administration and its machinery, places the blame for the continued deadlock in the business of real disarmament mainly on the White House and the policy of Washington itself, which is incapable of responding adequately and realistically to the challenge thrown down by nuclear-space reality. This conclusion suggests itself as a result of familiarization with the main material published in the leading American journals in 1986.

Having Strayed From the Right Path

In the sphere of arms control the Americans have strayed from the right path and are taking the wrong road--such, essentially, is the main conclusion of Harvard University professor T. Shelling, who had published in FOREIGN AFFAIRS the article "What Went Wrong With Arms Control?" (1). The central question to which the author attempts to find an answer is the interconnection of the development of the strategic situation in the world and arms control, the interconnection between them and ways of maintaining a secure peace. Painting a relatively idyllic picture of modern reality, he fails to discern reasons for concern: "I see no reason to believe... that the danger of nuclear war today has become more ominous than for a number of years past." Mankind has lived with nuclear weapons for more than 40 years, but without nuclear war, and this fact alone "refutes any assertion that nuclear war is inevitable." In addition, "deterrence," which has to this point protected mankind, continues to function. Despite all the rhetoric, he continues, "no one seriously believes that each side's capacity for delivering a retaliatory strike following a nuclear attack on it is or could prove to be as much in question as to render preferable for it a preventive strike in some conceivable crisis."

So peace is guaranteed, at least. This does not mean that he, Shelling, is opposed to arms control in principle. But in its present form this process has, he believes, a flawed inner logic making negotiations between the USSR and the United States at best fruitless, at worst, "furthering the arms race." "It is difficult to rid oneself of the impression that the planned deployment of 50 MX missiles was an undertaking imposed by a doctrine according to which the end justifies the means, and the end, furthermore, is something called arms control, and the means, a demonstration that the United States experiences no lack of will to compete with the Soviets or overtake them in each weapons category."

The author divides the strategic arms era into two periods: from the end of the 1950's through the start of the 1970's and from the start of the 1970's through the present. The first stage culminated in the signing of the ABM Treaty in 1972 and was characterized by the fact that the development of strategic thought and the strategic forces themselves and the interests of arms control did not contradict one another but developed in a common channel and, as it transpired, there was room for compromise. At the start of 1957 serious thought was given for the first time in the United States to the

vulnerability of its retaliatory forces to surprise attack. According to Shelling, American strategic aviation, totally unprotected, was concentrated at several bases and represented a good target for Soviet bombers. The launch of a satellite in the Soviet Union made the situation even more dramatic. It was considered so critical that the Eisenhower administration adopted the decision to maintain the country's air force in a state of limited combat readiness: a certain proportion thereof was permanently airborne.

Under these conditions Washington experts concluded that "the central problem of the strategic forces was their vulnerability to surprise attack." An urgent reequipping of the strategic forces began in the United States. In 1957 the Boeing Corporation embarked on the development of second-generation missiles--the Minuteman solid-fuel three-stage ICBM--which shortly after replaced the Atlas liquid-fuel missiles. Simultaneously the U.S. Navy embarked on the creation of a sea-based nuclear missile system: development of the Polaris SLBM's began. Essentially the American military took advantage of the "missile gap" campaign which it had inspired and circulated the proposition concerning the vulnerability of the United States' air bases for an acceleration of its strategic programs and a breakthrough in the main areas of strategic competition with the Soviet Union. In Shelling's interpretation Washington's actions appear as follows: "So at this stage the vulnerability problem was temporarily removed by unilateral actions without any arms control."

The further development of strategic thought in the United States convinced the ruling circles of the preferability of a situation wherein the security of the sides' strategic forces was provided for. The idea of "strategic stability" began to supersede the "employable nuclear superiority" principle. But military equipment continued to be upgraded. The appearance of antimissile defense systems (ABM) and systems of individually targeted separating warheads (MIRV-type reentry vehicles) put the question of the security of the United States and the Soviet Union on a new plane. However, the sides were able, as Shelling acknowledges, to find a fitting answer to the problems which had arisen. He calls the negotiations between Washington and Moscow in this period and their results, particularly the SALT I and ABM treaties, "an intellectual achievement embodied in policy." At the same time, however, he considers them "not only the culmination but also the end point of successful arms control."

Everything that has taken place since 1972 Shelling characterizes as an accumulation of errors and miscalculations. In addition, he regards the fact that the USSR and the United States have complied with the SALT II Treaty (the article was written prior to the R. Reagan administration's decision to violate the treaty--V.A.) without its ratification as evidence that the sides are "subconsciously" proceeding in the channel of arms control, "without recognizing" at times even the fact that the very logic of military confrontation imposes on them serious mutual restrictions not requiring any treaty commitments.

Shelling sees as the main miscalculation in arms control policy since 1972, which has been pursued by changing administrations, the Reagan administration included (prior to proclamation of the "strategic defense initiative"), the fact that there has been an unwarranted shift of emphasis from the nature of

weapons to their quantitative indicators. While publicly presenting proposals concerning a reduction in offensive arms, the Carter and Reagan administrations simultaneously implemented programs for a quantitative increase therein. Such an essential point as the specifics of the structures of the sides' strategic forces has been lost sight of here. Washington has essentially pursued two mutually exclusive goals: "achieving ultimately a reduction in the number by way of the control of arms" and at the same time, on the other hand, contending with the enemy in respect of each specific system. Such an approach, which the author calls "control for control's sake, and not for the sake of peace and trust," suffers, he believes, from an absence of logic. Shelling writes in this connection: "It is possible that the administration, which has no genuine interest in arms limitation, sees such control... as the best platform for advocacy of the arms race."

Nor does Shelling consider a way out of the situation the SDI, whose technical feasibility he seriously doubts. He is in principle opposed to unilateral actions, preferring mutual "deterrence" as a bilateral guarantee of the preservation of peace in the world. "A prudent abstinence from aggressive actions based on a recognition that the world is too small for nuclear war is a healthier basis for peace than unilateral attempts to create defenses.... Much of what we call civilization depends on mutual vulnerability."

In conclusion Shelling compares the modern world with people standing on the roadside, past whom huge trucks, dumpers and trailers are rushing at great speed. Attempting to slip through between them would be tantamount to condemning oneself to certain death. The one thing the author overlooks are the situations recorded by statistics of people becoming casualties on precisely such roads as a result of an accident or the malicious intent of others. Were something similar to happen with nuclear war, no statistics would record this. Shelling sums up: 40 years without war is the "best argument in support of deterrence." Such a philosophy was aptly characterized by Academician G.A. Arbatov: "This is the logic of an elderly person who has lived for 70 years and not died once and concludes on this basis that he will live for the next 70." While criticizing Washington officials for the groundlessness of their approach to the arms control problem Shelling himself offers nothing constructive, remaining within the sphere of the same "deterrence" concept and simultaneously in the positions of a kind of naive fatalism.

From the Past--Into the Past

If American journals do not identify with the authors, the latter, in turn, adhere to a similar rule in respect of the institutions which they represent. However, such a rule hardly extends to articles by representatives of the administration, whatever reservations accompany them. At least, it is hard recognizing the article in FOREIGN AFFAIRS of Defense Secretary C. Weinberger as the expression of the position of a private individual. His views expounded in the article "U.S. Defense Strategy" (2) reflect not only the personal viewpoint of the chief of the Pentagon but also the main postulates of the country's military policy, in whose formation the defense secretary participates most directly.

The Reagan administration assumed office with the firm intention of restoring to the United States its lost military power, C. Weinberger writes. The Republicans inherited from their predecessors outmoded concepts formed quarter of a century ago such as "nuclear deterrence," "expanded deterrence," "escalation control," "strategic stability," "offensive superiority," "limited wars," "escalation levels" and others. The 1950's, when these concepts appeared, were characterized, he said, by the United States' nuclear leadership and its military superiority. However, the USSR was able to match the position and became a "military superpower," which caused a qualitative change in the situation. Under the new conditions it was necessary to ponder the question: "Can the ideas formed in the era of American military superiority correspond with equal reason to the conditions of parity?" In order to make up for what had been let slip the Reagan administration engaged in concentrated efforts in two areas: a buildup of military strength and a rethinking of the conceptual principles of its use. "Now, 5 years later," the article says, "we have made considerable progress both in strengthening our armed forces and in modernization of our military strategy and policy."

Having abandoned the old concepts, the administration, Weinberger claims, attained a new level of strategic thinking. However, if we attempt to trace this evolution graphically, a kind of closed circle results formed, metaphorically speaking, by the "Weinberger measure". "Our strategy is simple," he writes. "We are endeavoring to prevent war by maintaining the armed forces at the proper level and demonstrating the resolve to use them, if necessary, such as to persuade our rivals that the price of any attempt to undermine our vital interests is far higher than the benefits which they might derive. The name of this strategy is deterrence." So, abandoning the "deterrence" of the 1950's, the defense secretary is calling for the "deterrence" of the 1980's.

"Deterrence" in the new interpretation should, Weinberger believes, meet four conditions:

survivability (the United States armed forces must be able to "survive" a preventive attack by a rival, preserving considerable "power of retaliation" in order to be able to deliver such a retaliatory strike as a result of which the enemy's losses would outweigh any gain);

plausibility (the United States' likely response must be such as a rival might imagine it);

clarity, unambiguousness (a rival must be clearly aware that which of his actions specifically will be deterred and what is forbidden him);

security (the risk of a mistake as a result of an accident, unsanctioned actions and the incorrect interpretation of actions of the other side must be reduced to a minimum).

Fulfillment of the above conditions pertains more to the organizational aspect of matters. Three interconnected conceptual ideas are advanced in addition to them which can alone make the modernized "deterrence" effective. First, the defense secretary appeals against resting content with demands for military

balance--the United States must be stronger than the Soviet Union since "preparations for deterring an attack only by way of building up forces which would suffice for our deterrence in a similar situation could prove insufficient for deterring the Soviets." Although Weinberger refers to some "persuasive evidence," he cannot adduce factual reasons for such a conclusion. Second, it is a question of the degree of risk which the United States can and must take; this is essentially a hidden appeal for the "globalization" of American overseas commitments. Weinberger appeals for an unabashed approach if in some situation or other it might seem to some people that the United States lacks sufficient reserves of power to assume additional commitments in some part of the world or the other. He proposes balancing the "American commitments--American power" equation not by a reduction in the first but by way of a buildup of military strength. And, finally, the last, third, component of "deterrence"--its multiple nature incorporating defense, escalation and retaliation. At all three levels, the author shows, the United States should have superiority in order to guarantee unacceptable losses for an enemy. In other words, all the "innovations" proposed by Weinberger are only repetitions of former calls for the United States' military superiority to the USSR.

The defense secretary puts down to the credit of the Reagan administration the fact that it has developed new approaches to the United States' military policy, which represent "an attempt to respond to the most important changes which have occurred in the strategic situation since the 1960's." They include such components as the SDI and "reliable nuclear deterrence," principles of the use of military force and "reliable deterrence by conventional means," the strategy of a reduction in arms and control of them and "contending strategies".

Weinberger is the most consistent (after the President himself) supporter of the "strategic defense initiative," and for this reason it is perfectly natural that he not only justifies it but advertises it in every possible way as a panacea for all troubles. Since nuclear deterrence is essential today, it is necessary to strive to make it reliable, the secretary asserts. But inasmuch as it continues to represent a threat it is necessary to look for an alternative. And the Reagan administration has found it--the SDI. The leader of the U.S. war department advances quite original arguments in support of the "star wars" program: "The Soviet spurt ahead, the Soviet breach (of the ABM Treaty--V.A.) and the perfectly realistic probability that American science and technology will realize what to many now seems an impossible dream."

What is understood by the "Soviet spurt" and the "Soviet breach"? In the first case it is a question, it transpires, of work to upgrade the antimissile defense system (authorized by the ABM Treaty, incidentally). In addition, Weinberger ascribes to the Soviet Union the development of its own strategic defense systems: "The Soviets are not only ahead of us today in the development and deployment of strategic defense systems but they have invested huge resources in this technology, and in various fields, what is more, and our SDI research program would be justified were it for no other reason even than to provide prudent insurance against a Soviet breakthrough." As far as

the "Soviet breach" is concerned, Weinberger categorically asserts that the Soviet Union will break with the ABM Treaty if at some point it considers that this would be to its "advantage".

While the SDI, in the opinion of the defense secretary, is to cater for nuclear deterrence, the principles of the use of the armed forces which he formulated are intended for the same deterrence, but with the use of conventional weapons. These principles are essentially nothing other than the parameters of "crisis response" policy and an attempt by high-flown phraseology to camouflage Washington's interventionist course. These are they:

the United States should use its armed forces if its "vital interests" or such of its allies are affected;

if the United States decides to employ its armed forces, they must be used on a large scale and receive the appropriate support in order to guarantee victory;

before making a decision on the use of the armed forces, the United States must clearly determine its political and military goals;

the size and purposes of the armed forces, as, equally, their composition and deployment, must constantly be a subject of reassessment depending on the development of the conflict in which they are involved;

before using these forces overseas, the U.S. Government must obtain proof that such an action would have the support of the public;

recourse should be had to the employment of the armed forces only in an extreme case, when diplomatic, political, economic and other means have been tried.

The enumerated principles may be taken to a certain extent as a kind of "code of courtly behavior" of the American armed forces outside of the country. However, the experience of recent years testifies to the reverse. The United States' operations against Grenada, Lebanon and Libya pertained to the time of leadership of the military department precisely of Weinberger--and they do not tie in with such a "code" at all. And one further quite typical point, which the author stipulates in connection with the problem of the use of the armed forces: "We must not succumb to the temptation to define the perimeter of our vital interests.... Judgments concerning our vital interests will depend on each specific situation...." Thus Washington would like to reserve for itself the right to interfere in the affairs of other peoples in any spot on the globe, even one most remote from its territory.

Weinberger's wordy arguments concerning the administration's approach to the problem of arms control could be expressed in the simple formula: "negotiations from a position of strength". "By strengthening the armed forces of the United States and acquiring new arms and simultaneously negotiating with the Soviets," he writes, "we are shaping in them motives for the conclusion of agreements, which would correspond to our interests." The desire to "outdo" the Soviet Union, as if it were a question of a children's game, is

at the basis of his calls for the more active use of so-called "contending strategies". The United States, the boss of the Pentagon believes, should approach with the highest degree of selectivity the development of new weapons systems and their deployment in order to force the USSR into such retaliatory action as would be the most burdensome for it.

The author of the article constantly endeavors to demonstrate something innovative distinguishing the military strategy of the present administration from the policy of previous ones. However, its entire content persuades us of the reverse: the credo of preceding administrations--reliance on strength--remains the same for the R. Reagan team also. And the sentence with which Weinberger concludes his article ("American military power is a prerequisite of peace. Strength is the payment for peace") is taken from the past also.

Five Myths

The Reagan administration's approach to the arms control problem is based not only on old tenets but false premises, which was shown convincingly by Democratic Senator J. Biden in a speech in the National Press Club in Washington. It was reproduced in the October issue of the journal ARMS CONTROL TODAY (3). According to him, elimination of the gap between the policy being pursued by the White House and the majority of the American people's support for the control of nuclear weapons requires of representatives of the administration considerable political resourcefulness. But they are displaying it mainly by propagandizing myths creating a smokescreen for abandonment of a policy of arms control.

The first myth consists of the assertion that on the eve of the Reagan administration's assumption of office the United States lagged significantly behind the Soviet Union in the military respect. For arms control, the "new faces" in Washington declared, it is necessary first to undertake a concentrated buildup of military power. "But in actual fact the assertion of relative military superiority (of the USSR--V.A.) was manifestly fallacious from the very outset," Biden observes, "and gained substance only thanks to its constant reiteration by the President and the defense secretary. An analysis of the United States' present strategic arsenal consisting of the same triad (ICBM's, SLBM's and long-range bombers), the components of which were already deployed or being prepared for deployment when Reagan was elected president, serves to show the falsity of such assertions."

The second myth that is being propagandized, which is without both proof and logic, is the claim that the buildup of strategic power which is being undertaken, including the preparations for "star wars," "has brought the Kremlin back to the negotiating table." But the Soviet Union, the senator emphasizes, "remained at the negotiating table ever since the two great powers began discussing limits to strategic systems." The result was the arms control system which operates today--a system which was being attacked by the President and his advisers long before they assumed office. "The Soviet Union," Biden writes, "needs arms control not for the reason of the so-called Reagan buildup of military power or the implausible threat of the creation of a consummate strategic defense but rather for reasons which are long-standing and which are similar to our considerations. Whatever the differences between

the two great powers--and they are vast--the leaders in Moscow have no less an economic and strategic interest than us in the achievement of some degree of predictability in respect of the enemy's forces. And they share with us a profound interest in mutual deterrent factors strengthening nuclear stability by way of a lessening of the threat of nuclear war."

If the buildup of American military power had indeed prompted anyone to sit down at the negotiating table, "it was only the Reagan government itself, which is using the negotiations to justify the expenditure on such imaginary trump cards as the MX missiles." In order to assuage the justified public concern the administration had to adopt at the negotiations a position which had at least a "semblance of plausibility". And this gave rise to the third myth: the U.S. Government "was putting forward serious proposals". The conclusion suggested itself from this "automatically," as it were, that any lack of progress at the talks could be attributed to the Soviet side. "However," Biden observes, "if the proposals of the U.S. Government are analyzed--both at the negotiations on intermediate-range nuclear missiles and at the SALT negotiations encompassing long-range systems--they are manifestly not serious."

The irony, the senator believes, is that the American initiatives contain elements directly contrary to the basic interests and doctrines of the United States. In the event of their realization, the SALT proposals presented by the administration would mean an actual acceleration of the fitting of missiles with multiple warheads instead of their removal, which is essential for consolidating nuclear stability. Even more illogical was the proposal concerning the prohibition of mobile missiles, which would undermine its own efforts to escape the vulnerability of the ICBM's with the aid of the new Midgetman missiles. Criticizing the proponents of the policy of a nuclear arms buildup, the senator directly names the addressees: "This last curiosity (the proposal concerning a ban on mobile missiles--V.A.) was the result of a vicious alliance continually undermining arms control under the present administration--an alliance between those in the Pentagon who deal with strategic weapon targeting and are obsessed with preserving the capability of keeping all Soviet missiles in their sights and the opponents of arms control in the administration, whom proposals unacceptable to the United States could only gladden. The outcome was a number of proposals incapable of serving as a basis for negotiations and simultaneously, however paradoxical, incompatible with American concepts of deterrence and nuclear stability--even were they to be accepted by the Soviet Union."

Although the "serious bargaining" myth did its duty for the government (in the sense that it "explained" the absence of progress for 6 years), Washington required a fourth myth--accusations of "massive Soviet violations". Now, when the Reagan administration has brushed aside SALT II, there is complete clarity here: it is the United States which is violating the treaty commitments. But even before White House representatives were unable to adduce any in any way convincing arguments in support of such assertions. "The 'massive' Soviet violations myth," the senator acknowledges, "is designed to conceal the fact that the numerical SALT sublimits restricting the deployment of missiles with multiple warheads and cruise missile-firing bombers are being observed in full by both sides, and there can be no convincing charges of Soviet violations

here either." It is indicative that it was Biden together with Republican Senator B. Cohen who submitted a bill which not only calls for but also demands the United States' continued compliance with the basic sublimits of the SALT II Treaty as long as they are observed by the Soviet Union. Further inducement to this step was, as the senator himself declared, the fact that the United States was confronted as a result of the actions of the Reagan administration with a "historic loss of responsibility for American strategic policy."

Biden terms the most notable the administration's fifth myth: "star wars," the idea of which is "by nature and fundamentally deceitful." First, a strategic defense system will not do away with the dependence on retaliatory strike forces. In the same way "star wars" will not deliver the United States from "nuclear dependence". Nuclear explosives are needed even for defensive technology--mainly for the X-ray laser. Nor will they, contrary to the assumptions, dispense with arms control. Even in theory no defensive system would be able to work without some limitations on an enemy's offensive systems, but such limitations are attainable only with negotiations. As far as the technical aspect is concerned, "the irrefutable and widely recognized truth is that an all-embracing system of protection of the population will not work."

The years of the Reagan administration's term in office, the senator asserts, show that in the short term the world is capable of surviving without progress in the sphere of the control of nuclear weapons. Reagan's supporters have scored, according to Biden, certain successes in propaganda of their myths, but have been unable to alter the realities of the nuclear age, among which he puts the following factors:

the Soviet Armed Forces, like the American, will in the foreseeable future also be capable of inflicting a devastating strike of colossal power;

the basic equation of mutual nuclear deterrence, which was recognized many years ago, cannot be changed even by the dreams of the President;

genuine reductions in nuclear arsenals will not occur other than on the basis of an agreement reached with the help of negotiations, which must unfailingly be connected with an accord concerning defensive systems;

arms control represents an effective means and main source of hopes for a consolidation of nuclear stability and a lessening of the danger of war;

arms control cannot be achieved by bluff and compulsion--it is possible only given a serious readiness for negotiations.

SDI--Illusion of Reaganism

No military program in the United States has caused such disputes (and skeptical assessments, more often than not) than the "strategic defense initiative". The opinion exists that in the form in which it was proclaimed by the head of the White House on 23 March 1983 only two persons believe in it--or, at least, declare that they believe in it: the President himself and the

defense secretary. The rest of those connected with the SDI program acknowledge that a "flawless defense" may be created, if this is possible at all, only in the distant future--and even then it will hardly solve the problem which engendered it (4). The SDI remains a subject of debate, dispute and passions. American journals reflect the most diverse aspects thereof. Despite the contradictory evaluations, increasingly great force is attached to the conclusion (shared by far from everyone, of course) that politically the SDI has already done tangible damage to U.S. interests. The arguments for this are that the SDI has introduced confusion to the national debate on American nuclear strategy; threatens strategic deterrence by undermining the ABM Treaty; is leading under the conditions of the budget deficit to an increase in and the incorrect allocation of defense spending; siphoning off the best creative resources at a time when the civilian sector is in acute need thereof for enhancing competitiveness on world markets; weakening the North Atlantic alliance by giving rise to serious doubts among West Europeans in connection with U.S. commitments in the sphere of "collective defense"; pushing the Soviet Union onto a path disadvantageous to the United States, prompting it to stimulate defense R&D and simultaneously revealing a prospect of the appearance of bigger Soviet missile forces capable of penetrating any American defensive system; and creating a serious obstacle to arms control.

Former U.S. Defense Secretary H. Brown, who had earlier been head of the Livermore Laboratory, wrote in FOREIGN AFFAIRS in the course of the debate on the technical feasibility of the SDI. In the article "Is SDI Technically Feasible?" (5) he reaches quite disappointing conclusions for the authors of the SDI: "The immediate prospects of defense against ballistic missiles are in general well known. From the technical viewpoint expenditure thereon may be justified in the case of the protection of certain categories of the strategic forces of retaliation. However, its capacity in respect of protection of the population against a retaliatory strike would appear unlikely before the year 2010 and after. A forecast for the more distant future from the viewpoint of the advantage of defense over offense is even less certain. Nonetheless, it is highly doubtful that the argument will be settled in favor of defense in connection with certain fundamental problems of the geometry, geography and physics of offensive countermeasures...." Some other former U.S. defense secretaries, R. McNamara and J. Schlesinger, for example, also consider the SDI technically baseless.

Also among the critics of the President's "defense initiative" is the above-mentioned G. Smith. He set forth his views in the article "Star Wars is Still the Problem" in the journal ARMS CONTROL TODAY (6). Why are the negotiations between the Soviet Union and the United States at a standstill? "The main reason for this hopeless situation," he writes, "is that the Reagan administration is attempting simultaneously to achieve two mutually exclusive goals: control, in conjunction with the Soviet Union, of strategic arms and the creation of a strategic defensive system against it. If the United States insists on pursuing this schizophrenic policy, we will not achieve arms control agreements, which the President calls his highest priority...."

At the same time, however, Smith shares the opinion of the defenders of the SDI, who assert that the "defense initiative" has increased the Soviet Union's interest in the fruitfulness of the Soviet-American disarmament negotiations.

The USSR, he believes, regards the SDI as an attempt by the United States to restore its strategic superiority. He adduces in support a statement by Weinberger: "If we can create a system which is effective and makes their (Soviet--V.A.) missiles powerless, we will have returned to the situation we were in when, for example, we were the sole nuclear power." For this reason, Smith believes, the USSR is perfectly justified in considering the SDI "a menacing step in acquisition of the capacity for disarming the Soviet arsenal and forcing Moscow to capitulate." The author calls for the SDI, without it being put on the back burner, to be included on the agenda of the Soviet-American negotiations, it being used as a lever of pressure on the USSR. The United States must clearly define its own reference points here: should it aspire to create a strategic defense system or seek serious reductions in strategic offensive arms? "This dilemma," Smith writes, "is particularly painful for the administration, which recognizes that its plan to eliminate nuclear weapons is impracticable without Soviet participation, while the SDI program is itself blocking cooperation with the USSR in the business of arms control." The author questions the administration's claim that the Soviet Union has forged ahead in the sphere of antimissile defense systems, believing that such statements do not reflect the actual state of affairs and are geared to winning additional military appropriations from Congress.

Smith writes about the polarization of the community and, in particular, academic circles to which the "strategic defense initiative" concept has led. On the one hand it is intriguing, as it were, in its "majestic" and "large-scale" nature, which is attracting various firms and individual scientists. For example, more than 3,000 applications for participation in the SDI programs have already been submitted. But at the same time many scientists recognize that its implementation could have disastrous consequences for strategic stability. Some 3,300 American scientists signed an appeal demanding an end to the financing of the "dangerous program" (58 percent being representatives of the professorial-lecturer staff of 14 of the most authoritative physics faculties).

As Smith believes, a partial defensive system or systems, whose effectiveness from the military-strategic viewpoint is considered dubious, are technically conceivable and possible. The creation of a system by one side would entail the appearance of a similar one in the other. At the same time, however, controlling the contest in the sphere of defensive systems would become increasingly complex. An argument frequently adduced in support of the deployment of a partial strategic defense system are possible terrorist actions or unsanctioned missile firings. But terrorists would be more likely to resort to the "parcel" bomb, against which both full-scale and partial defensive systems are equally ineffective. More complex, the author believes, is "the problem of unsanctioned, accidental firings.... But increasing the attention paid to safe storage (of nuclear missiles--V.A.) would be highly useful."

According to Smith, the Reagan administration's military policy abounds in paradox. Strategic defense systems are declared by it to be desirable, but the administration harbors fears in respect of the USSR's efforts in this field. If the United States succeeds in creating such a system first, this will be wonderful. If the Soviet Union is successful, the consequences will be

catastrophic. Arms reduction is a good thing, but it is first necessary to rearm. "Star wars" are designed to put an end to nuclear weapons, but a key component thereof are the same nuclear weapons--nuclear-pumped X-ray lasers. The sole intelligent alternative to Washington's illusory attempts to achieve with the aid of SDI superiority to the Soviet Union is, Smith believes, a search by the two powers for a solution of the "nuclear dilemma on the paths of the consistent conclusion of a series of arms control agreements."

The Attack on SALT II: Unwarranted Undermining of the Control System

On 27 May 1986 R. Reagan announced his intention to no longer comply with the limits provided for by the SALT II Treaty. The President's decision was sharply criticized by the most diverse circles both in the United States itself and overseas. Congress passed a special resolution condemning the administration's plans. The United States' allies sent messages to Washington expressing concern. The Soviet Union delivered a serious warning. However, the U.S. Administration did not renounce its plans. Having accepted for the Air Force the 131st and 132d B-52 bomber, at the end of 1986 the Reagan administration went over the limits of the SALT II Treaty.

The White House is attempting to portray the treaty itself as ineffective in "detering the buildup of Soviet strategic systems." The old method essentially has once again been put to use: diverting attention away from its own efforts to achieve strategic superiority. Accelerated work is under way in the United States on building up its nuclear potential (the deployment of the new MX ICBM, the Trident 2 SLBM and the B-1B heavy bombers, the creation of the Midgetman new type of mobile ICBM and the mass deployment of long-range cruise missiles).

The assertions of government representatives concerning the imaginary Soviet violations are, in the opinion of many American experts, built on sand and do not withstand criticism. This is the conclusion also reached by R. Earle in the article "America is Cheating Itself" (7) in the fall issue of the journal FOREIGN POLICY. Earle's is a very competent opinion: it was he who since 1978 headed the American delegation at the SALT II negotiations, and in 1980-1981, the Arms Control and Disarmament Agency. "A careful acquaintance with the facts," he writes, "indicates that, ignoring the history of the negotiations, attempting to reach the worst common denominator in an administration torn by disagreements or acting with premeditation, top figures of the Reagan administration and the President himself have turned the problem of compliance (with SALT II--V.A.) into a kind of monster which never had a right to exist. In addition, as the facts attest, a serious question arises: are the Soviets in violation (of the treaty--V.A.)?" In Earle's opinion, could there have been any violations, they would have had practically no military significance, and all problems with such supposed violations should have been tackled with the help of the existing standing Soviet-American Consultative Commission. However, from the very outset a negative approach to the commission evolved in the Reagan administration. It is significant that this opinion is shared by many American specialists. Specifically, C. Maynes, editor of FOREIGN POLICY, wrote in the article "Lost Opportunities" (8) carried by the FOREIGN AFFAIRS journal that, as distinct from its predecessors, "the Reagan administration has always preferred more to reap benefits on the domestic policy scene--even

at a price of undermining arms control--than to seek diplomatic successes at negotiations with the Soviets in connection with deliberate or unintentional violations. This is the first administration since the start of the SALT process which has endeavored to solve the problems of compliance with the treaty in such a spirit as to have brought the negotiations to a complete standstill."

Examining the administration's "charges" against the Soviet Union, Earle attempts at the same time to also answer such questions as: was it possible to have foreseen all these problems of "noncompliance" earlier and to have prevented them by way of the adoption of more strictly recorded commitments and how to avoid such problems in the event of the conclusion of future agreements?

From the start of the SALT II negotiations in November 1972 right up to the signing of the treaty in June 1979 both sides, Earle recalls, submitted numerous proposals concerning new ICBM's. The key problem was that of limiting the number and types of new ICBM's and defining the very concept of ICBM. Questions of permissible improvements of the existing systems were connected with the latter. The complex negotiations culminated in a compromise, in accordance with which the sides acquired the right to "test and deploy one new type of light ICBM". It was in accordance with this decision that the Soviet Union built one light ICBM, called in the West the SS-24. This was a step in response to the creation and deployment in the United States of the new MX missile. Also in compliance with the provisions of the SALT II Treaty the Soviet Union modernized a missile which had been made part of its armament 15 years previously. It was replaced by a missile which came to be called in the West the SS-25. Earle acknowledges that the appearance as part of the USSR's armament of the new SS-24 and the modernized SS-25 missiles are not contrary to the terms of the treaty. He recommends that those who are questioning the Soviet Union's compliance with the rules of missile modernization appeal to the Standing Consultative Commission.

The arguments of the author of the article also question other accusations of the Reagan administration apropos the Soviet Union's "violations" of the SALT II Treaty. "The violations of the treaty ascribed to the Soviets should be seen in the general context of its compliance with it," Earle writes. "It is a good situation in this sphere as a whole. And although Moscow has not made the cuts necessary in the event of the treaty being ratified, it has dismantled and destroyed 281 ICBM launchers, 245 SLBM launchers and 14 nuclear-powered missile-firing submarines in compliance with the limits on ballistic missile launchers stipulated by the SALT II Treaty. In addition, the Soviets have complied with a number of other prohibitions also... including the ban on the construction of ICBM launch silos."

By its reluctance to take into consideration the experience of negotiations the Reagan administration is damaging itself, Earle concludes. And its speculative campaign in connection with imaginary Soviet violations could do irreparable damage to the entire arms control process and American-Soviet relations.

The present administration's withdrawal from the SALT II Treaty has engendered in American scientific circles not only concern but also varying forecasts for the future. Some specialists like J. Nye, director of Harvard University's Center for International Relations, for example, attempt to look forward to the time when Reagan will have put aside his powers as U.S. President. "It is now customary," the author writes in FOREIGN AFFAIRS in the article "Farewell to Arms Control?" (9), "to say that it will be difficult for the next president, Republican or Democrat, to follow Ronald Reagan. In two respects, however, it will be easier for his successor to achieve some arms reduction agreement.... He will probably be more flexible in questions concerning the scale and pace of the research program; spared rhetoric in respect of deep cuts, a successor will evidently satisfy himself that important political benefits may be won at more modest and attainable levels than those which President Reagan originally mapped out."

However, ultimately, Nye believes, the incapacity for reaching a new arms control agreement will bequeath a difficult political legacy. Secondary military problems of compliance with the agreements will perform a central political role and impede the achievement of new agreements and their ratification. The basis for SALT will be conclusively undermined. Not only the existing limits on offensive and defensive missiles but also many measures increasing opportunities for observation and improving liaison could be consigned to oblivion. Although none of this means that there will not be so-called "unofficial and operational arms control," it also will evidently be weakened. The undermining of SALT will, possibly, entail more significant strategic costs than skeptics think.

Reykjavik: Contours of a Nuclear-Free World

The bold and large-scale program of nuclear disarmament proposed by the Soviet Union at the Reykjavik meeting revealed new vistas of lasting peace. For the first time mankind really moved onto the direct path leading to the safeguarding of general security. Displaying a sincere aspiration to the achievement of an accord, the Soviet side submitted new compromise proposals which took fully into account the points causing concern for the United States and made possible agreement on such most important issues as a reduction in and subsequently the complete elimination of strategic offensive arms and the destruction of medium-range missiles in Europe.

Implementation of the Soviet proposals afforded an opportunity for an abrupt turning point in the development of international relations, removal of the nuclear threat and the development of the peaceful cooperation of all members of the world community. Unfortunately, it was not possible to embody the agreement which had practically been achieved on the said questions in binding arrangements. The sole reason for this was the Reagan administration's reluctance to create the conditions for their realization by way of a strengthening of the ABM process and the adoption of the corresponding commitments identical for both sides. Washington preferred SDI to nuclear disarmament.

The meeting in Reykjavik revealed much. Specifically, it also threw light on the fact that the U.S. President was not prepared and not free to adopt bold

decisions corresponding to the interests of mankind and the American people themselves. Analyzing the reasons for R. Reagan's stubborn refusal to discuss questions of strengthening of the ABM process, M. Mandelbaum (associate of the Council on Foreign Relations) and S. Talbott (head of TIME magazine's Washington bureau) wrote in the article "Reykjavik and Beyond" in the last issue of FOREIGN AFFAIRS (10) that "the President was not prepared for looking definitively and in detail into the exceptionally important and incredibly difficult question of the future interaction between the SDI and the ABM Treaty." But it was not only a question of the President's unpreparedness. The authors claim that the American leader was essentially bound by political obligations to circles of the right. As the article observed, "Reagan was feeling pressure on the part of the right. Had he given even the appearance of accepting Gorbachev's proposal, he would have been vulnerable to charges that he had consented in Reykjavik to what he had managed to avoid in Geneva a year earlier: compromise on SDI. Conservative congressmen and observers were warning him on the eve of the meeting not to consent to such compromise; after Reykjavik they congratulated him on not having done this."

The authors of the article recognize that the meeting in the Icelandic capital was largely different from how Washington imagined it. Reagan regarded it as a "final base camp" en route to a summit in Washington. However, "the agenda was far more extensive, and the questions discussed, far more important than those which the Americans had intended studying at the proposed summit (which it was planned holding in Washington--V.A.)."

While expressing disappointment at the results of the meeting Mandelbaum and Talbott at the same time share the viewpoint of those who believe that an important step forward was taken in Reykjavik toward a better understanding of the problems of disarmament. Contrary to all the settled ideas about negotiating tactics and cautious diplomacy, the leaders of the two countries devoted themselves to the most difficult problem dividing them--how to limit and reduce the tremendous stockpiles of nuclear weapons. The subject of their negotiations was "one of the oldest, most thankless and least productive topics of the nuclear age--general and complete nuclear disarmament."

Mandelbaum and Talbott write that throughout 1986 the impression had taken shape in the U.S. Administration that the Soviet Union might consent to a separate agreement on medium-range missiles in Europe. For this reason many officials in the Reagan government proposed that this question be the "crux of the program" in Reykjavik. However, unexpectedly for Reagan the Soviet leader proposed "an all-embracing agreement on arms control extending to medium-range missiles, strategic offensive arms, SDI and other problems such as, for example, nuclear testing."

The U.S. President's adherence to the "star wars" program predetermined, as is known, the results of the meeting. "Gorbachev proposed a version," the authors of the article observe, "which had been expected by many specialists in the arms control field in the administration and outside and which some of them supported. For many months they had discussed the possibility of a 'grand compromise,' in accordance with the terms of which the United States would consent to appreciable limitations on the SDI program in exchange for just as

appreciable reductions in Soviet strategic forces." By its proposals the USSR demonstrated once again a readiness for radical solutions. However, the path toward compromise was blocked by the United States.

Despite the fact that the achievement of agreements had been thwarted by the American side, forces of the right in the United States were not slow to criticize the President in connection with the fundamental understandings arrived at in the course of the negotiations in Reykjavik. Military figures and certain leaders of Congress reproached the administration for the fact that in having consented to the destruction over a 10-year period of ballistic missiles it could thereby have undermined its proclaimed "strategic modernization" program. The future of the new-generation American missiles--the MX, Midgetman and D-5--could have been in doubt. In this connection Mandelbaum and Talbott mention complaints expressed by representatives of the Joint Chiefs of Staff Committee in connection with the fact that they were not even consulted at the time of the decision-making in Reykjavik.

Not least with the purpose of lessening this criticism, evidently, the American participants in the meeting in the Icelandic capital attempted immediately following it to distort the true picture of what had happened. The authors point to the contradictory pronouncements of American officials, confusion and discrepancies in the distinctive accounts of Reykjavik presented by representatives of the administration.

Despite the ambiguous and, for the most part, disappointing results of the meeting, Mandelbaum and Talbott believe that the future nonetheless belongs to arms control. "The potential agreement which was outlined in Reykjavik," they write, "will more than likely raise the ceilings determined by the 1979 SALT II Treaty. But the grand compromise, if it can be achieved, will hardly signify an entirely new approach to strategic arms control. Just the reverse, it will have borne out not only SALT I but also SALT II, having linked limitations on strategic defenses with ceilings on strategic offensive forces."

The year of 1986--the International Year of Peace--showed how complex the struggle for disarmament is. The exchange of opinions in Reykjavik between M.S. Gorbachev and R. Reagan enabled both sides to extend their understanding of most important problems of world politics, bilateral relations and an end to the arms race. But the architectural plan of a nuclear-free world proposed by the Soviet Union was not supported by the American side. It was dissatisfied not with its architecture but its purpose: the R. Reagan administration cannot conceive of a world without nuclear weapons and "star wars". But disarmament and the security of mankind are not a utopia. This is also understood in the United States itself by those who are capable of realistically evaluating the dramatic dilemma of the nuclear age. Many articles of American scientific journals testify to this.

FOOTNOTES

1. Tomas C. Shelling, "What Went Wrong with Arms Control?" (FOREIGN AFFAIRS, Winter 1985/86).

2. Caspar W. Weinberger, "U.S. Defense Strategy" (FOREIGN AFFAIRS, Spring 1986).
3. Joseph R. Biden, "The Five Myths of Reagan Arms Control" (ARMS CONTROL TODAY, October 1986).
4. See R. McNamara, "Blundering Into Disaster: First Century of the Nuclear Age" (MEMO No 12, 1986).
5. Harold Brown, "Is SDI Technically Feasible?" (FOREIGN AFFAIRS, vol 64, No 3).
6. Gerard C. Smith, "Star Wars is Still the Problem" (ARMS CONTROL TODAY, March 1986).
7. Ralph Earle, "America is Cheating Itself" (FOREIGN POLICY, Fall, 1986).
8. Charles W. Maynes, "Lost Opportunities" (FOREIGN AFFAIRS, vol 64, No 3).
9. Joseph S. Nye, "Farewell to Arms Control?" (FOREIGN AFFAIRS, Fall 1986).
10. Michael Mandelbaum, Strobe Talbott, "Reykjavik and Beyond" (FOREIGN AFFAIRS, Winter 1986/87).

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

"THE BRAIN DRAIN": NEW TRENDS AND OLD PROBLEMS

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 126-131

[Article by B. Porfiryev: "The 'Brain Drain': New Trends, Old Problems"]

[Text] The problem of the migration of skilled personnel from the emergent countries to the developed capitalist states, known in economic science by the name of the "brain drain," continues to attract the attention of scholars and politicians. The reasons are perfectly understandable. Under the influence of the S&T revolution there is an unswerving increase in the demand for skilled personnel--accordingly, there is expansion of the scale of the "brain drain" from the developing countries, which is encompassing increasingly new categories of scientists, engineers and other specialists. The geography of this process is expanding also. In addition, a number of new features came to light therein on the eve and at the outset of the 1980's.

What are these new features and the absolute and relative scale of the "brain drain" and also the consequences of this process for the West and the developing world?

I

An endeavor by the developed capitalist states--"centers of attraction" for skilled personnel from the developing countries--to muffle discussion of the "brain drain" and gloss over the true dimensions and mechanism of this process has been traced as of the end of the 1970's. Specifically, as of 1980 the United States--the principal recipient of specialists from the "third world"--has not been publishing data on their immigration. Simultaneously the United States and other leading capitalist powers are ignoring discussion of the problems of the "brain drain" in the United Nations, primarily in UNCTAD. As observed at the second meeting of government experts on reverse technology transfer (Geneva, 1984), "the continued absence of the 'B' group countries (the developed capitalist countries--B.P.) at the 'brain drain' talks is greatly regretted" (1).

The position of the developing countries themselves on this issue has also undergone certain changes, which has evidently been a consequence of the exacerbation of such problems as the foreign debt and the growth of

unemployment, among persons with higher education included, which intensified under the influence of the economic crisis of the start of the 1980's in the world capitalist economy. Under these conditions many emergent states have been inclined to regard the departure of specialists for work overseas as an important source of currency receipts (by way of the transfer of part of the emigrants' wages to the homeland) and as a means of the partial absorption of the unemployment among skilled personnel. According to UNCTAD data, the sum total of transfers of resources merely in the 10 developing countries which are the principal exporters of manpower (2) grew from \$1.6 billion in 1975 to more than \$11.5 billion in 1982, and its ratio to these states' aggregate imports, from 8 to 26 percent (3). The transfers from specialists account for an appreciable proportion of the said resources (precise figures are not available).

Particular significance is attached to transfers from specialists who emigrated to the Near East oil-exporting states. The numbers and proportion of these persons in the total influx of manpower to the Arab oil-exporting states are increasing: according to certain estimates, of the more than 2 million immigrants arriving annually in Saudi Arabia, the UAE, Kuwait and also Qatar, skilled personnel account for approximately 4 percent or 80,000 persons. The change in the direction of specialist migration flows, namely, the increase in the relative significance of the Arab region (and, to a certain extent, Southeast Asia) in the overall migration of skilled personnel from the developing countries, is a new feature characterizing the process in question in the past decade.

One further new feature in this process is that together with an aspiration to receive transfers from the specialist emigres the developing countries have simultaneously been attempting (as of the latter half of the 1970's) to develop an effective system of incentives for the return of at least some of them to the homeland or their enlistment for a certain time for consultation on this economic development project or the other. At the international level such a system--TOKTEN (from the English Transfer of Knowhow Through Expatriate Nationals)--was created and is being partially financed by the UN Development Program. The rest of the resources are provided by the developing countries participating in TOKTEN. They include India. Since 1982 a group of Indian specialists working in the United States under the leadership of R. Gopal, vice president of the well-known Westinghouse Corporation, has at the request of the Indian Government been working on the plan for a "science township," which will be located in Kotagiri (Tamil Nadu state). The assignment of this group, which has set up the Indus Technologies firm, includes determination of the main fields of the research work of this township, consultations with local specialists and workers and organization of a collection of resources among Indian emigres in the United States for implementation of the project in Kotagiri (4).

Another example of a country participating in the said system is Egypt, in which a special Ministry for Egyptians Abroad Affairs has been formed. In the opinion of an UNCTAD expert, the TOKTEN system has proven highly useful for ascertaining the symptoms of the "brain drain" and partially alleviating its consequences, although "it is not affecting the factors at the basis of this problem" (5).

The new phenomena and trends undoubtedly have made certain changes both to the very process of the emigration of skilled personnel from the developing countries and to the evaluation thereof by the international community, by representatives of various groups of states in the United Nations included. Nonetheless, there are as yet no grounds for a fundamental revision of the--as a whole--negative evaluation of the socioeconomic consequences of the "brain drain" process to which progressive scholars, politicians and public figures in the developing countries themselves, as, equally, Soviet specialists, adhere.

For a more precise determination of the true scale of the "drain" it is necessary to differentiate between the flows of the the migration of personnel from the developing countries to the Near East and the developed capitalist states. These flows differ both qualitatively and quantitatively. In the first case the bulk of the migrants--more than 90 percent--continues to be made up of unskilled and semiskilled workers, although the proportion of skilled personnel is increasing. So that in the first case it is probably legitimate to speak more of a "muscle drain" and not a brain drain. On the other hand, skilled personnel are being attracted mainly to the developed capitalist countries: specialists accounted for 40 percent of the total number of immigrants from developing countries to the United States in 1961, but this indicator had risen to 75 percent in 1970. There is reason to believe that the flow of "qualified" emigrants to the United States and other developed capitalist countries with significant dimensions of immigration remained predominant in the 1970's-start of the 1980's also (6).

With the passage of time relatively appreciable changes have been observed in the rate of migration processes: whereas throughout the latter half of the 1970's emigration to the Near East states from other developing countries of the region grew, at the start of the 1980's its rate slowed somewhat, and a more rapid reduction in the influx of foreign manpower, skilled included, into the Arab OPEC countries is possible in the future, some experts believe.

The Near East oil-producing countries attracting skilled specialists from other developing countries are trying to ensure that the damage caused the latter be minimal. Specifically, Saudia Arabia's policy provides for opposition to the prolonged stay of immigrants, the introduction of various privileges for foreign specialists (thus the social insurance contributions for foreign specialists returning home are paid in full) and a waiver of the monetary transfers and presents restriction. Under these conditions the outflow of personnel from the developing countries which are the sources of emigration to the Near East and certain other emergent states attracting skilled manpower is of a relatively short-term nature and does not have as tangible negative socioeconomic consequences as arise in the event of a "brain drain" to Western countries (7). The numbers of specialists arriving for permanent residence and work in the Arab oil-producing countries are comparatively small (less than 50,000 or 10 times fewer than in the West, according to certain estimates).

The policy of the developed capitalist states in respect of the immigration of specialists from the developing countries is constructed on different

principles. It is oriented toward the maximum (with regard for the domestic market's skilled manpower requirements) expansion of the influx of specialists from the former colonies and semicolonial territories, by way of their direct enticement included. In this case it is legitimate to speak of real "brain transfer" from the developing countries. This policy of the imperialist states, primarily the United States, is leading to a whole number of negative socioeconomic consequences for the emergent states, one of which is the significant scale of the irreparable loss of specialists.

II

A precise quantitative evaluation of the "brain transfer" is attended by a number of difficulties. First, there is a lack of a precise standardized criterion for specialists, whom statistics attribute to the skilled personnel or brain workers category. Different indicators are employed in different countries and international organizations. People working in science, engineers and physicians are ascribed to emigres of this category in the United Nations, specifically in UNCTAD. In a number of developing countries this group also incorporates teachers, accountants and other specialists, the "drain" of whom compared with other professions is reflected in the national economy particularly painfully. At the same time, however, not attributed to this category are skilled workers, whose training frequently demands considerable time and also expense. A 4-year period of professional instruction is necessary to train a worker servicing an all-purpose machine tool, for example. The numbers of such migrants have been growing at a very high rate in the 1980's.

Second, and this is partially connected with the said circumstance, the inadequacy of the statistical base of the registration of specialist emigres (the obsolescence and inadequacy of the data, their total or partial incomparability and so forth) is reflected. Therefore currently the quantitative determination of the scale of the "brain transfer" is of a very approximate nature and is constructed on the basis primarily of expert assessments.

Considering the enumerated aspects directly influencing the calculation of the magnitude of the migration flows of specialists, it would seem expedient to stick to UNCTAD's customary procedure for calculating the scale of the "brain transfer" as the sum total of research assistants, engineers and physicians who have left the developing countries for the developed capitalist states for a certain length of time and who have remained there.

According to official data of the U.S. Immigration and Naturalization Service, at the start of the 1980's some 150,000 specialists from the emergent states were working there, including more than 45,000 from Asian states (8). However, these figures do not provide an accurate idea of the true state of affairs inasmuch as only persons registered as "legal immigrants" are considered. Yet a significant proportion of the research assistants, engineers and physicians from the developing countries does not have or did not have immigration status at the time of registration, although permanent residents of the United States. They also include students, the overwhelming number of which remains here following completion of the course of training. According to certain

estimates, of the more than 40,000 students from developing states who studied in the United States in the period 1966-1977, more than 27,000 or over two-thirds of them failed to return to the homeland. For the Asian states this indicator is even higher--75 percent on average (99 percent for Lebanon, 80-90 percent for Taiwan and South Korea and 78 percent for India), for Latin America, somewhat lower (in the period 1977-1980 it constituted approximately two-thirds on Jamaica, for the region as a whole, approximately one-half). As economists of the United States' National Science Foundation believe, from 60 to 75 percent of Arab specialists residing permanently in the United States have not officially been counted as immigrants.

If we consider these figures not taken into consideration by statistics, the real number of emigre specialists from the developing countries in the United States is at least double the official indicators. According to an estimate of the American newspaper NEWSDAY, in the period 1974-1979 alone the United States "acquired" approximately 200,000 such specialists. There is also a similar situation in other developed capitalist states deliberately downplaying the indicators of the numbers of skilled personnel from Asian, African and Latin American countries working there.

Besides the specialists remaining in the OECD states following tuition in universities and colleges, a considerable number of scientists, engineers and physicians from developing countries is working there who obtained an education in the homeland, but then emigrated to the West. According to our estimates, 15,000 physicians from the emergent states have left for Great Britain and the United States in the past 15 years, including more than 10,000 for the United States alone. It is also possible to speak of more or less stable directions of the "brain transfer": from Asia and Latin America to the United States and Canada, and from Africa to West Europe (9).

As a result no less than 500,000 scientists, engineers and physicians from the emergent countries are now working in all developed capitalist states, which constitutes approximately 20 percent of their total number. The United States accounts for at least two-thirds of the "brain transfer".

The outflow of specialists from the developing countries to the West is considerable not only in terms of absolute but also relative indicators. According to data of the UNCTAD Secretariat, the emigration of personnel of certain professional categories to the developed capitalist countries constitutes from 20 to 70 percent of their annual graduation. The main category of specialists from the emergent countries remaining behind following training in the OECD countries is physicians. According to the estimates of Prof O. Gish from the University of Michigan, in the mid-1970's these specialists constituted three-fourths of graduate physicians in the United States. True, their numbers declined somewhat here subsequently, which was connected with the tightening of immigration policy.

There is one further indicator--the number of scientists and engineers who have emigrated from a developing state per 1 million of its inhabitants. It fluctuates relatively sharply by country and region. For example, for emigres heading from Jordan and Lebanon to the United States it constituted in the latter half of the 1970's 116 and 221 persons respectively compared with 10-12

for all the other developing countries. We would note for comparison that the emigration of specialists from West Europe to the United States in the analogous period was not more than 4-5 persons per million inhabitants (10).

The policy of luring specialists from the developing countries pursued by the developed capitalist states affords the latter significant socioeconomic benefits. Estimating the real dimensions thereof is far from easy for not all of them are susceptible to quantitative, including cost, computation. We will therefore confine ourselves to an estimation merely of the benefits which may be measured or estimated. Among them are:

savings in the training of specialists in the corresponding capitalist country. Figures of the U.S. Congress Foreign Relations Committee indicate that in the 1970's, thanks to the emigration of skilled personnel from the developing countries, the United States saved on education approximately \$1.8 billion a year (1972 prices). According to other data, this indicator equaled \$1.5 billion (11);

the value of the products or services created and rendered respectively by skilled personnel from the developing states in the country of residence. According to the results of an UNCTAD study, such "potential value" in the United States alone is put at more than \$3 billion annually on average (1975 prices) (12). This figure does not include the savings from the work of individual scientists from the developing countries--specialists of world renown (13) whose activity is of particular importance for science and technology;

benefits from the discriminatory system of taxation of skilled personnel from the developing countries, on whom the OECD states levy higher taxes than on national specialists. In UNCTAD's estimation, such economies constitute up to \$1.5 billion a year on average (1975 prices) (14);

advantages connected with the attraction of personnel whose training is very complex or impossible in the host capitalist country (physicians specializing in folk medicine, for example). Such benefits are analogous to those derived by the developing states when employing the consulting services of Western firms in the fields of science and technology in which these states lack any significant experience.

Tallying up the above-listed advantages, the aggregate benefits from the "brain transfer" of the United States alone may be put at an average of \$6 billion a year (1975 prices). If, however, the savings derived by the other OECD countries (primarily Great Britain and Canada) are added here, the aggregate benefits of the imperialist states from the "brain transfer" will probably amount to a value of the order of \$10 billion a year on average (1975 prices). At the same time, however, at the start of the 1980's the amount of technical assistance of the Development Assistance Committee OECD countries constituted an average of \$7-8 billion a year, and the host countries spend more than half this sum, what is more, on payment for the services of Western specialists and consultants and also national personnel being trained abroad (15).

The adduced indicators of the imperialist states' aggregate benefits from the "brain transfer" from the developing countries exceed by a factor of 1.5-2 the well-known UNCTAD estimates, which do not take account of all factors. We would note that our data also are far from exhaustive since they do not include a number of aspects which are not quantifiable.

III

"The 'brain drain,' the outflow of skilled human resources from (developing--B.P.) countries where these people could be of the greatest benefit to society to countries already well-supplied with experienced teachers and capable research and administrative workers (that is, the imperialist states--B.P.), is a loss of most important resources of 'human capital'. And this loss cannot be compensated" (16), the well-known report to the Club of Rome prepared under the leadership of J. Tinbergen rightly emphasizes. The damage caused by the emergent countries by the "brain transfer" is made up of the following components:

the losses on the training of specialists emigrating to the developed capitalist countries. According to data of U.S. Government experts, this expenditure in the 1970's in all developing countries amounted on average to more than \$320 million annually (1972 prices) (17). According to other estimates, this indicator is higher by a factor of at least 1.5;

payment for the training of and support for students and graduate students not returning to the homeland following completion of their training. Of the more than 700,000 students of the emergent states being trained in higher educational institutions of the OECD countries, more than 80 percent do not receive grants from the host countries. In the United States such students constitute more than 90 percent. Even if we consider the small percentage of trainees who are in receipt of government grants from the host countries, the amount of these grants of trainees who are in receipt of government grants from the host countries, the amount of these grants, according to our calculations, aggregate losses in terms of this item amount on average to approximately \$700 million annually (1984 prices) (18). At first sight it might appear that these are losses of the citizens and not the state. But as a result there is a reduction in the amount and proportion of personal savings in the monetary resources of the developing countries, which is ultimately negatively reflected in their financial-economic potential;

the value of the products and services which could have been created or rendered by the emigre specialists in the homeland had they not left it. This sum may be estimated roughly at \$3 billion a year (1975 prices);

the losses connected with the restrictions on emigres' monetary transfers to the homeland as a consequence of the action of the discriminatory system of the taxation of specialists from the developing countries in the OECD states. As already observed, this sum is put at approximately \$1.5 billion a year (1975 prices).

Summing up merely the above types of losses, we see that the damage to the developing countries from the "brain transfer" runs into a very sizable sum--

approximately \$8 billion a year (1975 prices). However, the young Asian, African and Latin American states incur, in addition, tremendous socioeconomic losses, on which it is difficult to put a value.

Specifically, the skilled manpower market and its supply mechanism, an essential component of which is the "brain transfer," which have evolved within the framework of the world capitalist economy have stimulated in a whole number of young states the special training of personnel oriented in advance toward its "marketing" overseas and the subsequent monetary transfers from these specialists to the homeland.

However, the actual demand for scientists, engineers and physicians from the developing countries on the part of the developed capitalist states, whose requirements are determined to a large extent by the conditions of the capitalist skilled manpower market, is unstable. As on the regular commodity market, periods of relatively high demand are replaced by a decline therein. In the latter case the relative "overproduction" of the corresponding specialists in the developing countries arises, which leads to a growth of unemployment among persons with higher education. The negative socioeconomic effect of such processes is obvious, although measuring it is very difficult.

Particularly tangible damage to the developing countries is being caused by the enticement of the specialists in the shortest supply needed by the economy and society as a whole for the solution of urgent social and economic problems (health care, food supply, industrialization, environmental protection and so forth). Take the main professional category of the emigres--physicians--who account for one-third of the entire "brain transfer". The self-seeking policy of the imperialist countries was the reason why in the postwar period approximately 130,000 medical persons left the emergent states for work in the West. As a result, of the 8,000 professionally qualified foreign physicians in Great Britain currently, two-thirds come from the developing countries, and of the 60,000 foreign physicians in the United States, the overwhelming proportion thereof is also from these states. More medical persons from Iran work in New York alone than in Iran itself, as do more Thai medical workers than their colleagues in rural localities of Thailand. In France there are more physicians from Togo than French medical personnel in this African state. And this is happening at a time when an average of 25 million persons a year, including 13 million children, are dying in the developing countries themselves from infectious diseases alone (19).

The "brain transfer" is even doing palpable damage to the few developing countries which have a sizable contingent of skilled specialists like India, for example, which occupies, as is known, third place in the world in terms of the numbers of S&T personnel. In particular, the emigration of physicians and engineers from Indian cities is leading to their having to be replaced by colleagues who under other circumstances would be working in the countryside, where there is a constant shortage of medical personnel. As a whole, however, according to the estimates of the Indian scholars B.N. Ghosh and R. Ghosh, throughout the postwar period the damage to the country from the "brain transfer" is in excess of \$1.5 billion (or approximately \$40 million a year). Another relatively large developing country--the Philippines--the World Bank believes, would need no less than 16 years, given the present rate of training

of medical students and a halt to their emigration to the West, to compensate for the losses from the "drain" of surgeons in preceding years. Given a continuation of the present scale of the "brain transfer," however, this will take no less than 26 years (20).

As far as the less big emergent states are concerned, the absolute dimensions of the damage can by no means be less there. Thus as a consequence of the "brain transfer" Jamaica lost almost \$200 million in 1977-1980 alone, that is, an average of \$50 million a year. This was higher by a factor of 1.3 than the corresponding indicator for India, and per capita, by a factor of more than 400 (21).

Whence it is perfectly clear that the attraction of skilled personnel from the emergent countries to the developed capitalist states has nothing in common with the customary exchange of specialists within the framework of states' S&T cooperation or with the migration of skilled personnel between emergent countries (on which certain bourgeois economists and sociologists are insisting). This was emphasized with all well-foundedness by the representatives of socialist and developing countries at the above-mentioned second meeting of representative experts on reverse technology transfer (22). For the purpose of countering losses from the "brain transfer" the developing countries aspire to develop within the UNCTAD framework the appropriate compensation mechanism. The proposal in this connection was first submitted by Jordan (1977). In 1983 Egypt presented an initiative for the establishment of an international fund for the professional training of personnel from the developing countries, and in 1984 Jamaica proposed the creation of an international mechanism for controlling the developing countries' human resources. The above initiatives, whose implementation is being impeded by the imperialist states, could perform a positive role primarily in perfecting the control of the migration flows of specialists from the developing countries, supplementing the already approved methods (emigres' monetary transfers back home, for example).

The USSR and the other socialist countries support these and other measures countering the "brain transfer"--a form of the neocolonial plunder of the Asian, African and Latin American developing states.

FOOTNOTES

1. UN Document TD/B/AC.35/9, 17 November 1984, p 6.
2. These countries include Bangladesh, Egypt, Jordan, India, the Yemen Arab Republic, the People's Democratic Republic of Yemen, Pakistan, Sudan, the Philippines and Sri Lanka.
3. Calculated from UN Document TD/B/943/Add., 1, 8 February 1985, p 7.
4. See DEVELOPMENT FORUM No 9, 1985, p 6.
5. UN Document TD/B/AC.35/9, p 11.
6. See *ibid.*, p 4.

7. Despite the considerably lesser scale of the losses incurred by the developing countries "supplying" specialists to the Arab oil exporters, there are such losses, nonetheless (drain of intellectual resources in short supply. See TIERS MONDE No 103, 1985, pp 583-596).
8. See B.N. Ghosh, R. Ghosh, "Economics of Brain Migration," New Delhi, 1982, p 77.
9. R.I. Zimenkov, "American Neocolonialism and Technology Transfer," Moscow, 1982, p 159; A. Smirnov, "The Developing Countries' Specialist Personnel" (EKONOMICHESKIYE NAUKI NO 12, 1984, pp 56-57); "The Arab Brain Drain," ed. Lahlan, London, 1981, p 156.
10. See "The Arab Brain Drain," p 194; DEVELOPMENT FORUM No 7, 1981, p 6; Document TD/B/AC.35/4, 20 September 1983, p 1.
11. Jan Tinbergen, "Revision of the International Order," Moscow, 1980, p 329; Document TD/B/AC.35/4, p 2; M. Hardymen, J. Midgley, "The Social Dimension of Development. Social Policy and Planning in the Third World," London, 1984, pp 170-171.
12. Calculated from "World Development Report 1983," Washington, 1983, p 105.
13. Approximately two dozen scientists originating from developing countries who are Nobel Prize winners, including 10 who are specialists in the medical field, work in the United States alone.
14. N. Volkov, "The Scale of Neocolonial Exploitation of the Emergent States" (MEMO No 9, 1983, p 57). The "block" principles of calculations propounded in the given article is used in this work to estimate the consequences of the "brain transfer".
15. In accordance with a far from complete estimate of World Bank experts, Canada alone saves from the enticement of specialists from the developing countries from \$140 to \$340 million annually or an average of \$240 million a year (1986 prices). In current terms this number constitutes, apparently, no less than \$600 million annually (see "World Development Report 1983," pp 104-105).
16. Jan Tinbergen, "Revision of the International Order," p 329.
17. "World Development Report 1983," p 105.
18. Jan Tinbergen, "Revision of the International Order," pp 328-329; R.I. Zimenkov, "American Neocolonialism and Technology Transfer," p 158; AZIYA I AFRIKA SEGODNYA No 9, 1983, p 41.
20. B.N. Ghosh, R. Ghosh, "Economics of Brain Migration," p 85.
21. Calculated from UN Document TD/B/AC.35/9, p 21.

22. See Ibid., p 10.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

CURRENCY POLICY AND INTERNATIONAL CAPITALIST TRADE

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 132-135

[Article by M. Yershov: "Currency Exchange Rate and International Capitalist Trade"]

[Text] The instability of the sphere of international payments manifested in sharp fluctuations of the exchange rates of the main monetary units is leading to increased uncertainty concerning the terms of the conclusion of transactions. Changes in parities are deforming trade exchange, influencing the volume of supplies, prices and the balance of trade structure. The exchange rates of currencies of international status are reflected in world trade as a whole.

It is this multilevel aspect which explains the lack of an unequivocal evaluation of the role of the currency factor in international capitalist trade. Some scholars assert that the fluctuations in exchange rates have a considerable impact on intercountry exchange: a weakening of monetary units brings about a growth of exports and a decline in imports and vice versa (1). In the opinion of others, currency is of secondary significance for trade. In addition, doubts are expressed even concerning the correspondence of theoretical calculations to practice (2).

The prevailing opinion among GATT employees is that the said dependence is of a formal nature and that changes in the currency exchange rate merely compensate for the difference in the rate of inflation in different countries, thus keeping the conditions of commodity exchange relatively stable. A report of this organization records: "...In the long term a change in customs policy has an indisputable impact on the relative competitiveness of national and foreign commodities, whereas the movement of the exchange rate influences competitiveness negligibly or not at all" (3). Many people, on the other hand, believe the link to be obvious. Summarizing the viewpoint of the finance ministers of a number of Western states, B. Brock, a representative of the Reagan administration, declared that "inordinate fluctuations of currency exchange rates could have a disastrous effect on trade possibilities" (4). The same opinion is held by economists of the United States' Federal Reserve System.

However, the contradictions are "removed" if it is clearly determined precisely which aspect of the problem, timeframe or state are at issue. The investigation may be conducted on several levels: on the scale of the world capitalist market; an individual country; from the standpoint of firms participating in international exchange.

The world-economy analysis would seem the most complex. Difficulties of a statistical nature arise, primarily. The exchange rates of different currencies move in opposite directions, and the benefits derived by some countries are accompanied by losses for others. It is therefore necessary to pay attention not only to the direction but also the range of the rate fluctuations characterizing the instability of the currency sphere and, consequently, the degree of risk at the time of the conclusion of contracts. To a certain extent the value of the range has a stimulating or restraining impact on international exchange (under the conditions of strong currency fluctuations trade has grown more slowly than in periods of relative currency stability, see table).

Exports of the Industrially Developed Countries and Currency Exchange Rate Fluctuations*

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Currency exchange rate fluctuations (%)	2.7	1.7	1.2	2.8	1.4	1.5	3.8	3.2	2.5
Annual growth rate (linked index) ..	112	104	106	106	104	102	98	102	

* Exports calculated in 1975 constant prices; variation coefficients of the corresponding currencies (calculated on the basis of quarterly data) are taken as the indicator characterizing currency exchange rate fluctuations and weighted per the place of each currency in international export payments.

Calculated from "International Financial Statistics"; "National Institute Economic Review" for the corresponding years.

It goes without saying that a decisive influence on trade was exerted by other, deep-lying factors, but exchange rate fluctuations contributed to an increase in the overall impact. Considerable shifts in the geographical direction of commodity flows and their structure and foreign trade prices were brought about by abrupt changes in the exchange rates of currencies used in international financial transactions. Among these are the U.S. dollar, which on the eve and at the outset of the 1980's accounted for more than 75 percent of the sum total of currency transactions, the FRG Mark (9 percent), the Japanese yen (approximately 6 percent) and the Swiss franc (5 percent). In trade over 50 percent of the sum total of transactions is effected in dollars, the Deutschmark accounts for 14 percent, and the British pound sterling and French franc, for 6-7 percent.

Influence on the part of the dollar was the most pronounced. The strengthening of its positions in the first half of the 1980's contributed to a lowering of foreign trade prices thanks to a reduction in the cost of goods paid for in the American currency (the index of the dollar import prices of world capitalist trade in 1980 constituted 100, but in 1985, little more than 80).

Following the decline in the dollar's exchange rate, many types of products on the world market became noticeably more expensive. According to certain estimates, the prices of manufacturing industry products in dollar terms will have grown 15-20 percent in 1986 and more than 5 percent in 1987 (5).

It is also essential to mention the developing states' foreign debt, the amounts of which are recorded predominantly in the American dollar. The increase in the value of the dollar in the 1980's automatically increased the burden of foreign liabilities. The debt crisis has had a direct impact on all of capitalist trade: the developing countries have been forced to cut back on purchases of commodities abroad, which, in turn, has prompted the industrially developed states to seek other sales markets and reduce the production of products intended for export to the developing countries.

The influence of the currency factor may be traced more definitely at the country level. It is important to consider here the structure of each country's foreign payments. For example, the Italian lire accounts for only 9 percent of Italy's import payments, and for this reason the lire exchange rate does not exert a noticeable influence on national firms' foreign economic activity. In the United States the role of the dollar in trade settlements is decisive: 98 percent in respect of exports and 85 percent in respect of imports (6). In this case there is reason to look for a cause and effect connection between fluctuations in the dollar's exchange rate and changes in American trade. A role of considerable importance is performed by the currency structure of payments in bilateral trade relations, for example, 85 percent of the FRG's exports to the Netherlands are paid for in Deutschmarks and 12.3 percent in Dutch Gulden. For this reason it is these currencies which should be considered primarily upon an analysis of trade relations between the said states.

The mechanism of the influence of changes in currency exchange rates on intercountry trade exchange is in principle not complex. In the event of a devaluation of the national currency, exporters selling their commodities and receiving foreign currency for them exchange it at the new rate and as a result obtain a large amount of national monetary units. Exporters may lower the prices of their products in a foreign currency and still have additional profits. The cheaper exports begin to enjoy increased demand.

Imports become more expensive inasmuch as foreign exporters are forced, when exporting products to the country where the devaluation has occurred, to raise prices in its currency in order to compensate for the unfavorable effect from changes in the exchange rate. The increased cost of imports causes reduced demand for them. The balance of trade improves.

But this is the "ideal" pattern. In real life things are considerably more complicated. Specifically, the lowering of export prices does not always bring about a corresponding increase in demand. If a market is crowded with certain types of commodities, it may not respond at all or respond inadequately to the price changes. The overall value of exports here is lowered, causing a deterioration in the balance of trade. The growth of import prices, in turn, does not necessarily lead to a reduction in imports. There will be no reduction, for example, if the commodities are of exceptional importance and

there are no substitutes for them on the national market. An expansion of exports given devaluation could lead to increased imports, when the production of export commodities is connected with purchases of foreign raw material, semimanufactures and so forth. In addition, currency exchange rate fluctuations destabilize international trade, forcing exporters and importers to cut back on transactions overseas or to hedge them with a number of conditions to cover the risk.

In order to insure itself against possible losses the importer-firm may abandon foreign sources of supply altogether and switch to transactions on the national market. Various methods of covering risks are employed extensively also: specifically, the contracts incorporate currency provisos. But they, in turn, serve as a source of additional contradictions. Exporters, for example, are interested in the price being expressed in a more stable, stronger currency. Importers prefer the exchange rate of this currency to show a falling trend inasmuch as the actual value of the contract, given its depreciation, will decline, creating advantages for the purchaser.

Under such conditions the comprehensive consideration of the trends of the movement of currencies and their forecasting becomes increasingly urgent. And, furthermore, account is taken of both principal and derived factors influencing the formation of exchange rates: interest rates, inflation, financial transactions, the general world economic and political situation and others.

The enumerated factors also have an impact on intercountry exchange. They should be studied here, however, together with other parameters: export, import and national prices and national GNP and the GNP of the partner-country, which as the results of studies show, also influence trade considerably. The said parameters were employed in calculations of a model permitting a specific estimation of the role of each of them in the reciprocal trade of the United States and Japan in 1970-1985.

In constructing the model we proceeded from the following prerequisites. The scale of American imports is determined by business activity in the United States, the growth of which leads to an increase in the volume of commodities imported from overseas. In addition, American importers proceed from the correlation of the prices of import products and analogous products intended for the domestic market: lower prices of imports compared with national prices increase demand for Japanese commodities (other things being equal).

Demand in Japan for commodities exported from the United States is also directly dependent on economic conditions within the country. The exchange rate of the yen in relation to the dollar (practically all settlements between the two countries are effected in these currencies) determines ultimate currency earnings.

The United States' import prices depend on the level of prices of the corresponding types of products in Japan (inasmuch as Japanese exporters have to consider the conditions of the home market when establishing the prices of their goods) and on the currency exchange rate. The United States' export prices depend primarily on demand for the exported commodities: the higher it

is, the greater the opportunity for an increase therein. Prices of the domestic market are also of significance for analogous products, a growth of which, as a rule, leads to the increased cost of exports.

As a whole, the model is based on general regularities which have already been ascertained, but permits the determination of a quantitative connection between the components. The coefficients obtained in the calculations of regressive equations show to what extent each factor has brought about changes in the "unknown" (defined) parameter and also the nature of their influence. The results appear as follows:

$$E = 0,0041 \underset{(2,9)}{YW} - 0,037 \underset{(3,6)}{ER} - 0,104 \underset{(2,0)}{ERR} +$$

$$+ 18,23 \underset{(5,4)}{R^2 = 0,88} \quad (1) \\ \underset{(5,4)}{DW = 1,82}$$

$$PE = 0,037 \underset{(2,9)}{E} + 0,27 \underset{(1,7)}{PY} + 0,00065 \underset{(3,6)}{Y} +$$

$$+ 0,068 \underset{(2,3)}{ERR} - 1,145 \underset{(3,7)}{R^2 = 0,98} \quad (2) \\ \underset{(2,3)}{DW = 2,16}$$

$$M = -16,47 \underset{(2,9)}{RPM} + 0,03 \underset{(9,9)}{Y} - 0,31 \underset{(2,5)}{ERR} -$$

$$- 40,31 \underset{(6,8)}{R^2 = 0,92} \quad (3) \\ \underset{(6,8)}{DW = 1,83}$$

$$PM = 1,20 \underset{(7,8)}{PYW} - 0,0036 \underset{(3,3)}{ER} +$$

$$+ 0,015 \underset{(2,8)}{ERR} + 0,850 \underset{(2,0)}{R^2 = 0,97} \quad (4) \\ \underset{(2,8)}{DW = 2,08}$$

M = American imports from Japan, \$, billions, in 1970 constant prices;
E = American exports to Japan, \$, billions, 1970 constant prices;
PM = United States' import prices;
PE = United States' export prices;
PY = U.S. national prices;
RPM = correlation of United States' import and national prices;
PYW = Japanese national prices;
YW = Japan's GNP, \$, billions;
Y = U.S. GNP, \$, billions;
ER = average annual yen/dollar exchange rate;
ERR = currency risk (standard deviations of the yen/dollar exchange rate).

N.B. The regressions (1)-(4) are linear. The following lags were employed in their calculation: in equation (2) E = 2 years; PY = 1 year; Y = 1 year; ERR = 2 years; in equation (3) RPM = 1 year; ERR = 2 years; in equation (4) PYW = 1 year; ERR = 3 years. In parenthesis beneath the coefficients is the k-statistic showing the value of the parameter. The Darbin-Watson coefficient (DW) indicates fluctuations not considered in the equation. The determination coefficient (R to the power 2) shows the extent to which the regression equation corresponds to the given model.

The coefficients may also have different numerical values given the use of statistical data for another period or given another set of factors, but in any event, the impact of components of the model on trade exists.

According to equation (1), changes in the yen/dollar exchange rate by a unit of 1 cause changes in American exports by 0.037 units in the opposite direction (the relatively small value of the coefficient is explained by the low parity of the yen in relation to the dollar compared with other currencies).

The exchange rate also directly influences import prices (equation 4), and, through them, influences the import volume (equation 3). The exchange rate influences export prices indirectly--via the export volume.

The currency risk factor also exerts an appreciable influence. Given an increase in the range of the fluctuations of the exchange rate, there is a decline in both exports and imports. This may be explained by the increased uncertainty when conducting foreign trade transactions as a result of the movements in the exchange rate and, consequently, the great risk connected with an expansion of trade.

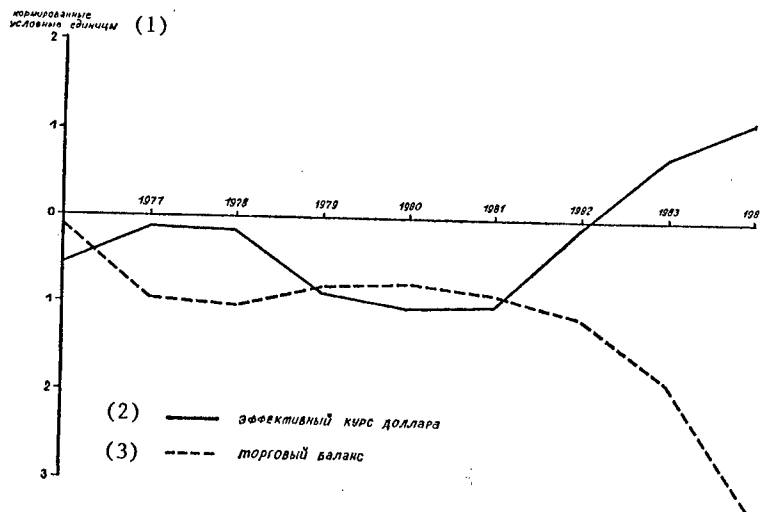
At the same time, however, the fluctuations in the yen in relation to the dollar lead to an increase in the prices of commodities participating in international exchange since exporters endeavor to secure themselves against losses and increase the price of their products in order to guarantee a certain amount of currency earnings despite fluctuations in the exchange rates. The currency risk is thus transferred to the purchaser.

Individual commodity groups in American-Japanese trade (food and engineering and manufacturing products) also reacted to changes in the reciprocal parity of the currencies. Calculations for 1970-1982 showed that the rise in the cost of the dollar caused a reduction in American exports of these commodities, and its depreciation stimulated exports thereof.

It was ascertained in the course of the analysis that the exchange rate changes were manifested with somewhat of a delay, and the "lag" sometimes amounted to 6-8 quarters, what is more. So despite a reduction in the cost of a currency, the balance of trade in many cases continues to deteriorate for a certain time by force of inertia. This phenomenon is called the "J curve effect" and is explained by the fact that prices, together with other parameters, are enshrined in contracts and may not thus immediately respond to the currency fluctuations. Whence the obstacles in the way of an expansion of exports and a leveling of the balance of trade. This situation, for example, took shape in the United States in the period 1976-1984 (see diagram).

Consideration of the said regularities is of great practical significance inasmuch as a stable currency system makes to a considerable extent for the efficiency of foreign trade (to a growth of which all states aspire). At the same time, however, the close coordination of the national policy of all the capitalist states in this field is required to ensure stability in the currency sphere. But their interests are so different that they prevent the implementation of concerted long-term measures.

Effective Exchange Rate of the Dollar* and the U.S. Balance of Trade



Key: 1. Fixed arbitrary units. 2. Effective dollar exchange rate. 3. Balance of trade.

* Rate in relation to a "basket" of currencies.

N.B. Compiled on the basis of fixed data; balance of trade is taken with a lag of 1 year.

FOOTNOTES

1. See "International Currency-Finance and Credit Relations," Moscow, 1984, p 212.
2. See MEMO No 11, 1981, p 98.
3. Quoted from F. David, "Le commerce international a la derive," Paris, 1982, p 114.
4. US EXPORT WEEKLY, 17 May 1983, p 232.
5. See NATIONAL INSTITUTE ECONOMIC REVIEW No 4, 1985, p 38.
6. See NATIONAL INSTITUTE ECONOMIC REVIEW No 4, 1981, p 60.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

KEY-READY CONCEPT OF CONSTRUCTION EXPLAINED

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNIYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 136-138

[Article by Yu. Morando: "What Is 'Key-Ready' Construction?"]

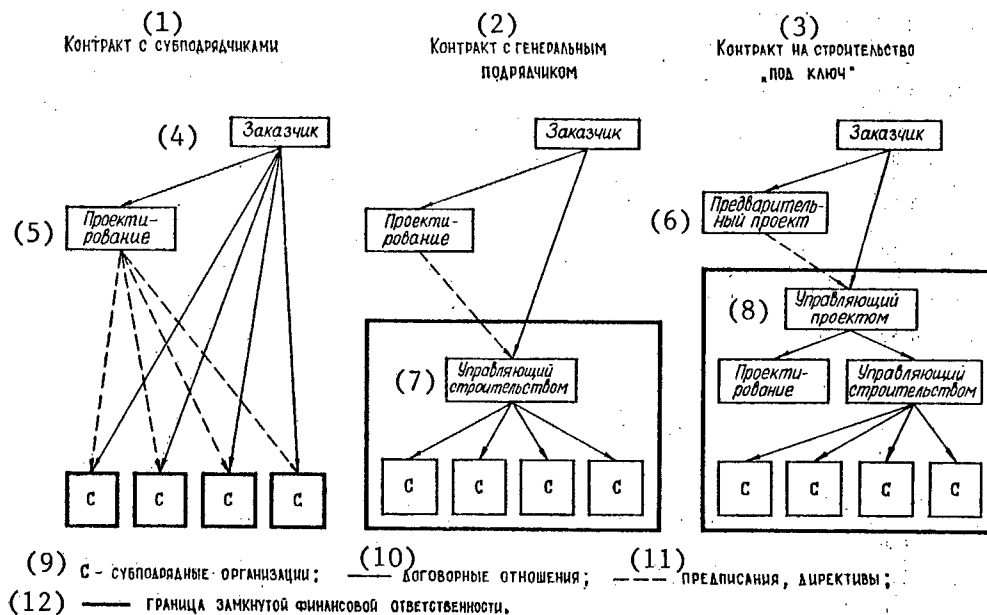
[Text] A regular reader of ours, I. Sadovskaya, a construction worker from Gorkiy, asks us to describe such a form of organization of construction as the "key-ready" contract.

The organization of construction by "key-ready" contract is not in principle new. The practical application of this type of contract in West Europe was known back in the latter half of the 19th century. In the United States the "key-ready" contract became prevalent at the start of the 20th century, mainly thanks to the construction of capital-intensive oil production and refining facilities.

The appreciably enhanced role of this method, particularly in the last 10-15 years, has been connected with a number of factors. The deterioration in the general conditions of reproduction in the 1970's-1980's, the increased complexity of construction, new phenomena in the international division of labor--these and many other factors contributed to the creation of the conditions in which the positive aspects of this type of contract were able to show themselves to the fullest. As a result the amount of "key-ready" operations has been growing continuously since the mid-1960's, and this type of contract has now become predominant in the developed capitalist countries.

In the United States the amount of "key-ready" construction amounted at the start of the 1980's to \$50 billion or 44 percent of the aggregate construction volume performed by the 400 biggest firms. In the FRG the relative significance of the contract grew from 6 percent in 1965 to 38 percent in 1982. It needs to be borne in mind also that foreign contracts of exporters of construction products for practically all industrial and engineering construction and the comprehensive development of housing and social facilities are "key-ready" contracts.

Organization of Construction Per Various Types of Contracts



Key: 1. Contract with subcontractors. 2. Contract with main contractor.
 3. Contract for "key-ready" construction. 4. Client. 5. Design work.
 6. Preliminary design. 7. Construction manager. 8. Project manager.
 9. Subcontract organizations. 10. Contract relations. 11. Orders, directives. 12. Limit of exclusive financial responsibility.

Essentially the "key-ready" construction contract is a variety of main contract activity and a higher stage thereof. The basis thereof is a systemic approach to realization of a project based on the optimum combination of the functions and efforts of all participants in the investment process. The contract implies a fixed price and timeframe for the construction at a given quality level.

Besides these basic undertakings, the contract may contain additional demands of the client like, for example, technical assistance in the period of assimilation of the complex and its development to full capacity, assistance in the training of specialists for work at the future facility and so forth. Another important singularity of this type of contract compared with the traditional types is the increased financial responsibility of all participants in the project. This can be clearly seen upon an analysis of the outline of the organization of production by the most typical methods (see sketch).

Let us examine the main types of contracts in accordance with which construction may be performed. Upon the conclusion of a contract management of the construction process is directly assumed together with the subcontract firms (contract with subcontractors) by the client, the latter forming a special subdivision for the period of the construction with the enlistment of professional managers. The contract relations of the client and the subcontractors are of a highly complex nature and are reflected in numerous contracts. The financial responsibility of each executant is confined to the

framework of his subcontract activity. Such a form of financial responsibility only for one's own area of work has a number of shortcomings since the interests of individual executants may not concur with the interests of others or with the overall strategy of the project even.

For this reason, given realization of a project under the conditions of an independent subcontract, the likelihood of a deviation of the actual parameters of the project under construction from the source data (planned cost, timeframe, quality level) arises. It is essential that the managerial component have a detailed plan of coordination of the activity of all participants in the investment process at the stage of development of the project even. This type of contract contains a far greater subjective factor in the planning and organization of construction than the two subsequent ones inasmuch as all managerial activity is concentrated in the hands of the client, and his orders to the contractors are of a directive nature.

Given a contract with a main contractor, the functions of organizer of the construction process, as full financial responsibility for its end result also, are entrusted to some one executant, usually the firm performing the construction and installation. Possessing broad powers, it forms the composition of the subcontractors with regard for previous experience of cooperation. The form of contract with a main contractor contributes to unification of the efforts of the participants in the construction, their interest in the performance of the whole set of operations and a search for mutually acceptable and mutually profitable solutions and therefore makes it possible to optimize indicators of the production process.

With this form of contract the design work phase preserves a certain independence and is not a part of the system of common financial responsibility for the end result. Mistakes in the design plans and specification revealed in the course of the work may hold up construction and imprecision in the designs also leads to actual costs diverging from those planned. For this reason it is practically impossible given this form of organization to conclude contracts with a fixed cost and timeframe of construction.

"Key-ready" construction is aimed at removing the shortcomings inherent in the main contract. It is a system of single financial responsibility for the project as a whole, incorporating design work also, which affords an opportunity for minimizing the timeframe of the construction and its cost and, what is most important, stimulating compliance with these conditions. The organization of construction per this type of contract makes it possible to make the design work process continuous. As a result a feedback system emerges, that is, the timely ascertainment of shortcomings in the design and their prompt removal and the constant adjustment of the design in the course of its realization.

Thanks to the possibility of the combination of design work and construction, the prerequisites of which are contained in the very system of the organization of the production process, it is possible to reduce considerably

the duration of the investment cycle. Thus application of the "key-ready" contract in the practice of U.S. construction makes it possible to economize on time to the extent of 25 percent.

The set quality level is also arrived at in the process of detailed planning. A list of particular types of materials and structures with precise engineering and cost specifications is determined in the course thereof. The "quality design work" phase also provides for an obligatory indication of the engineering process with detailed specification of work methods. Thus the quality parameters of the future facility are laid down at the design work stage, and the system of continuous supervision of compliance with the orders guarantees achievement of the necessary level of construction quality.

Detailed design work demands the extensive application of computers, duplicating equipment and automated drawings. It is to a large extent the increased functional possibilities of the automated design system which have contributed to the spread of the "key-ready" contract in the 1970's-1980's since the basis thereof is the principle of more accurate estimates of the planned parameters than with the traditional methods of the organization of construction.

The system of project management implies the creation for the period of the construction of a single headquarters incorporating representatives of all the organizations participating in the investment process. This achieves the enhanced responsibility of each participant for the joint approach. It becomes possible to ascertain bottlenecks promptly.

A design-construction, design or purely consultancy-management firm could be the project manager coordinating the activity of all parties in the investment process with full authority and the full measure of responsibility to the client. Given the installation of industrial enterprises with a preponderance of modern technology, the project is managed more often than not by engineering firms inasmuch as they may together with management of the construction process competently tackle questions connected with the enlistment of the latest industrial techniques.

The increased complexity of the designs and the enhanced role of organizational factors in the course of the construction process have increased the significance of managerial activity and led to its separation as an independent component. The high professionalism of the specialists of the consultancy-management firms has contributed to the extension of the activity of their representatives as project managers. In the FRG, according to data of the Ifo-Institut, the fees of such firms in 1979 were in excess of DM1.9 billion, and foreign contracts accounted for 52 percent of this amount, what is more.

The functions of the project manager incorporate consultative assistance to the client; choice of designers and contractors; organization of predesign work and study of the design work assignment; preparation of documents for the conclusion of contracts; arranging contracts for the supply of components; planning and compilation of networks and schedules; control of the cost,

timeframe and quality of the construction; commissioning of the facility. Thus the project manager coordinates practically all aspects of activity pertaining to realization of the project.

Special polls conducted in 1973 and 1983 by the West German Ifo-Institut enable us to ascertain the principal reasons for the prevalence of the "key-ready" contract. They include primarily its all-purpose nature. The contract is employed at the time of the installation of comprehensive industrial complexes and the construction of small social facilities and is used extensively by major construction corporations and small firms (true, as the practice of the FRG shows, the large construction firms use the "key-ready" contract to a somewhat lesser extent than the small companies. Thus the proportion of construction per this type of contract among West German firms with up to 200 employees increased twofold in the decade, whereas among the large firms--over 500 employees--by a factor of 1.4). The said trend is largely explained by the fact that the organization of construction by way of the temporary unification of independent participants contains large potential for efficiency since competition for any vacancy is maintained here. Given fulfillment by the main contractor method, on the other hand, either the main contractor himself or his branches account for a considerable portion of the volume directly, and the subcontractors are enlisted only as needed. The "key-ready" contract project manager is free to choose contractors.

The prevalence of the "key-ready" construction contract in the practice of the foreign construction of the leading capitalist countries is brought about by three most important factors. The construction firms receive the absolute majority of orders from Asian and African developing countries. For example, in 1983 it was there that French construction firms performed 91 percent of overseas construction. A specific feature of the developing countries' market is that the use of local manpower (except for auxiliary operations), as also the supply of components for the facilities under construction, is practically ruled out owing to the low level of local production.

Another important factor is the structure of the foreign orders. In the period 1976-1983 on average housing construction accounted for just 7.8 percent of West German orders, industrial construction, 16.3 percent, and social construction (hospitals, schools and so forth), 32.1 percent, but hydraulic engineering (canals, ports, bridges, dams) and power stations, for 43.8 percent. On the FRG's home market, however, housing construction accounts for approximately 48 percent. Thus the foreign construction market is characterized by the predominance of bigger and technically more complex projects.

And, finally, the third reason for the prevalence of this type of contract is stronger competition between construction firms on the foreign market than within the country. In order to interest the client a contracting firm is forced to assume upgraded commitments. Only thus can it gain certain advantages over other claimants. It is the "key-ready" contract which is concluded more often than not under these conditions inasmuch as, owing to the strict demands on the executant, it takes the client's interests into account to the greatest extent.

The "key-ready" construction contract, which is employed extensively by construction firms of capitalist countries, has good prospects. Thus in the course of a recent poll of West German businessmen engaged in construction 40 percent of those polled indicated an absence of any problems in the organization of construction by the "key-ready" contract.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

USSR TRADE WITH DEVELOPING COUNTRIES

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) pp 146-147

[L. Sabelnikov review: "Strengthening Cooperation"]

[Text] The book in question* is distinguished by its sound theoretical level, suffusion with factual material and formulation of a number of topical, at times contentious, questions concerning the paths of the continued development of the Soviet Union's economic relations with young independent states.

The monograph is opened by a chapter on the principles of the alliance of the forces of socialism and the national liberation movement. Emphasizing that any exploiter society "inevitably engenders a system of domination and subordination in interstate relations" (p 13), the authors show that cooperation with the developing countries in the anti-imperialist struggle is the historic mission of the socialist states. They concentrate their main attention on the disintegration of colonialism and the appearance of a group of countries of a socialist orientation. As a result a new progressive alternative to capitalist development for the emergent countries, which have now been able to rely "on scientific theory and increasingly extensive practice" (p 21), has emerged.

The chapter illustrates the natural process of the expansion of the spheres of the joint actions of the USSR and the developing countries on the world scene. Specifically, quite recently even the leaders of many of them considered questions of the arms race secondary and pertaining to the sphere of East-West interests, but at the start of the 1980's the direct connection between the state of the international situation and the possibilities of tackling tasks of social development had become obvious to all. And it is not simply a question of the direct threat of thermonuclear catastrophe but of the arms race's absorption of tremendous resources and the accompanying offensive of imperialism against the positions of the emergent countries.

The work describes the most important principles of the USSR's economic relations with the young states. They include strict observance of sovereignty and a renunciation of any political or other pressure on the countries receiving assistance; cooperation with a wide range of partners; the creation (mainly in the key sectors) of enterprises with the USSR's participation, and

they are the property of the young states, what is more; emphasis in economic assistance on the transfer of the material resources and knowhow necessary for production; preferential terms for the extension and repayment of Soviet credit; the USSR's aspiration to increase imports of finished products from the developing countries; technical assistance on favorable terms and the training of skilled personnel (pp 33-36). In addition, the mechanism of the control of these relations consisting of a number of central authorities, an overseas machinery and institutes promoting development is examined.

The chapter on the main forms of the USSR's economic relations with the emergent countries is of considerable interest to the reader. It is a question of trade, cooperation in the sphere of capital construction, the creation on their territory of mixed companies with Soviet participation, multilateral cooperation, with the enlistment of partners from the capitalist countries included, and also credit-finance and payment relations. The adduced material provides an idea of the transition to more complex forms of joint activity encompassing the sphere of material production and permitting the more active accomplishment of "tasks of aid to the developing countries in the restructuring of their economy and all social life on the basis of progressive principles via foreign economic relations" (p 65).

The sections on mixed companies and multilateral cooperation are of interest. Specifically, the thoughts on the paths of an increase in the efficiency of such forms of relations--ascertainment of the most promising sectors, a high level of feasibility of the proposals and determination of the optimum share of Soviet participation--attract attention.

Analyzing credit-finance relations, a most acute problem of the developing countries, the authors recall that the USSR extends credit assistance to more than 60 of them (p 116). It is closely connected, as a rule, with S&T assistance and the need for the transfer and assimilation of new technology and is fundamentally different from the financial "aid" of the capitalist countries accompanied by the imposition of burdensome conditions. At the same time questions of an increase in the mutual benefit from credit relations are examined. It is necessary to consider here on the one hand progressive inflation and, on the other, the fact that the socialist states' credit to their developing partners "is not a surplus of financial resources invested overseas," as the joint statement of these states at the Fourth UNCTAD Session observed (pp 121-122).

The book pays considerable attention to the USSR's cooperation with the emergent countries on a compensation basis permitting the timely repayment of loan resources and the acquisition of markets for new products. The broad scale of the compensation transactions (approximately 60 corresponding intergovernmental agreements), their most prevalent spheres and their mutual profitability are reflected.

One section is devoted to the results of the USSR's cooperation in the solution of the developing countries' social problems. It is a question of an expansion and strengthening of the public sector, the formation of national personnel, increased employment and an improvement in medical services. A wealth of factual material is presented on this whole range of questions.

The chapter on the anti-imperialist struggle in the sphere of international economic relations is short, but of telling content. The activity of the USSR in intergovernmental organizations, which, as is known, began back at the dawn of Soviet power under the leadership and with the personal participation of V.I. Lenin, is making an appreciable contribution. The stages thereof, specifically, the adoption at the suggestion of the Soviet Union of the Declaration on the Granting of Independence to Colonial Countries and Peoples, and the initiative of the USSR on a reduction in armed forces and the use of some of the resources thus released for aid to the developing countries, are traced. Analyzing the progressive propositions of the program for the establishment of a new international economic order, the authors do not overlook a certain inconsistency of this document (disregard for the task of struggle for a relaxation of international tension and the need for social transformations in the developing countries, a search for ways to restructure world-economic relations merely within the framework and by the methods of the capitalist economic system and such).

The work is, naturally, not without shortcomings. Thus one section (on, for example, mixed companies, multilateral cooperation and credit-finance relations) also examines in detail together with an analysis of the wealth of experience of cooperation with the USSR problems holding back an intensification thereof. This certainly enhances the study's practical value. However, in a number of others (specifically, on the mechanism of the USSR's economic cooperation and trade with the developing countries, relations in the sphere of capital construction and the significance of cooperation) the authors confine themselves mainly to a summary of what has been achieved and thereby fail to provide a complete picture of the ambiguous phenomena and processes which are taking place.

The book adduces uncritically, we believe, the unduly overstated evaluations of the prospects of the rate of increase in the 1980's in the USSR's trade with the emergent countries of experts of international organizations (see pp 62-63). Yet the progressive differentiation in this group of our partners (the majority of whom is as yet proceeding along a capitalist path) and the inconsistency of the policy of many of them caution that it would be better to adopt a more guarded attitude toward forecasting here.

The problem of "return trade," which has become quite prevalent in recent years in the economic relations of the industrially developed powers and the young independent states, has been left out of the analysis virtually.

We would note in conclusion that the monograph in question definitely advances the study of topical questions of the USSR's foreign economic relations and will undoubtedly be received with attention by the reading public.

* "SSSR--razvivayushchiyesya strany. Torgovo-ekonomicheskkiye otnosheniya" [USSR--Developing Countries. Trade and Economic Relations], Moscow, "Mezhdunarodnyye otnosheniya", 1985, pp 240.

COPYRIGHT: Izdatelstvo Tsk KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

MEMO REPRESENTATIVE MEETS WITH READERS

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 3, Mar 87 (signed to press 12 Feb 87) p 157

[Text] At the end of 1986 there was a meeting in Kiev in the Ukrainian SSR Academy of Sciences Social and Economic Problems of Foreign Countries Institute between Science Editor V.B. Amirov, representative of the MEMO journal, and readers--a number of leading associates of the institute and lecturers of most important educational institutions of the Ukrainian capital (the Kiev State University, the National Economy Institute and so forth). V.B. Amirov briefed those assembled on the main tasks and problems on whose solution the editorial office was working. These are primarily an increase in the quality of the published material and its topicality. The journal is contemplating expanding the publication of articles of a theoretical nature and stimulating work in such fields as debate and "roundtables". Permanent new columns have been introduced--"Economic Experience of Foreign Countries," "The Foreign Press" and so forth. Under the conditions of the restructuring of its work the editorial office perceives particularly keenly the need for constant contacts with the readers and the organization of feedback.

The questions and speeches of the participants in the meeting manifested great interest in the journal on the part of the research associates and lecturers. It was also said that the journal has a sizable student readership in Kiev. Critical remarks and expectations were expressed.

The greatest attention was paid to problem-solving articles and special-subject discussions. It was observed that such material of the journal is extraordinarily necessary to the research associates and lecturers and serves as a support in their work to a large extent. The readers inquired whether the debate on the worldwide economy, which had somehow "dried up," would be continued. The opinion was expressed that two different questions had been confused therein: the first, of whether world-economic relations are primary or secondary and, the second, of the category of the worldwide economy. In the opinion of a number of readers, a discussion of international economic security was needed. The editorial office's plans to discuss the problem of the correlation of the national and the international in the world capitalist economy were assessed positively.

As far as individual problem-solving articles are concerned, mention was made here, in particular, of the long absence from the journal of major theoretical articles on the financial system of the capitalist states. The desire was expressed for an appreciable expansion, both in the quantitative and thematic aspects, of the publication of material on the socialist countries, including that containing a comparative analysis of the processes occurring in the socialist world and the capitalist world.

The journal used to publish certain chapters of monographs prior to publication. A wish was expressed for a return in this form or the other to such "advance" publications. This is necessary particularly for non-Muscovite research associates. On the other hand, the readers believe, it is necessary to forgo articles lacking a scientific charge.

Great attention was paid to discussion of the annual supplement to the journal--"Economic Position of the Capitalist and Developing Countries". It, in particular, is widely recommended for the students. In the opinion of many participants in the meeting, it should provide less current-situation and more medium-term, including retrospective, material on topical specific problems (on the export of capital with the corresponding statistics, for example). It was also mentioned that in terms of structure and content the section of the survey devoted to the seven leading capitalist countries should not be repeated from year to year.

Roughly the same complaints and wishes were expressed in respect of the statistics located at the end of the journal. They frequently represent a simple translation of foreign reference material, which research associates can peruse themselves. It is necessary, the readers observed, to publish more analytical, original statistics. Prompt statistical information on topical issues is needed also.

And, finally, one further problem--the journal's connection with the republic centers. Wishes were expressed for the more extensive enlistment of their associates in the publications, particularly the debates, advance notice of the planned "roundtables" (which the journal has already begun to do) and so forth. Mention was also made of the desirability of the periodic reviewing and annotating of monographs published by such research centers.

The editorial office considers the meeting of a representative of the journal and international affairs researchers and lecturers in Kiev useful and intends to broaden the practice of diverse contacts with the readership.

COPYRIGHT: Izdatelstvo TsK KPSS "Pravda".

"Mirovaya ekonomika i mezhdunarodnyye otnosheniya", 1987.

8850

CSO: 1816/7

END

This is a U.S. Government publication. Its contents in no way represent the policies, views, or attitudes of the U.S. Government. Users of this publication may cite FBIS or JPRS provided they do so in a manner clearly identifying them as the secondary source.

Foreign Broadcast Information Service (FBIS) and Joint Publications Research Service (JPRS) publications contain political, economic, military, and sociological news, commentary, and other information, as well as scientific and technical data and reports. All information has been obtained from foreign radio and television broadcasts, news agency transmissions, newspapers, books, and periodicals. Items generally are processed from the first or best available source; it should not be inferred that they have been disseminated only in the medium, in the language, or to the area indicated. Items from foreign language sources are translated. Those from English-language sources are transcribed, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by FBIS/JPRS. Processing indicators such as [Text] or [Excerpts] in the first line of each item indicate how the information was processed from the original. Unfamiliar names which are rendered phonetically or transliterated by FBIS/JPRS are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear from the original source but have been supplied as appropriate to the context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by the source.

SUBSCRIPTION/PROCUREMENT INFORMATION

The FBIS DAILY REPORT contains current news and information and is published Monday through Friday in 8 volumes: China, East Europe, Soviet Union, East Asia, Near East & South Asia, Africa (Sub-Sahara), Latin America, and West Europe. Supplements to the DAILY REPORTs may also be available periodically and will be distributed to regular DAILY REPORT subscribers. JPRS publications generally contain less time-sensitive information and are published periodically. Current JPRS publications are listed in *Government Reports Announcements* issued semi-monthly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161 and the *Monthly Catalog of U.S. Government Publications* issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

U.S. Government offices may obtain subscriptions to the DAILY REPORTs or JPRS publications (hardcovers or microfiche) at no charge through their sponsoring organizations. DOD consumers are required to submit requests through appropriate

command validation channels to DIA, RTS-2C, Washington, D.C. 20301. (Telephone: (202) 373-3771, Autovon: 243-3771.) For additional information or assistance, call FBIS, (703) 527-2368, or write to P.O. Box 2604, Washington, D.C. 20013.

The public may subscribe to either hardcover or microfiche versions of the DAILY REPORTs and JPRS publications through NTIS at the above address or by calling (703) 487-4630. Subscription rates will be provided by NTIS upon request. Subscriptions are available outside the United States from NTIS or appointed foreign dealers. Back issues or single copies of the DAILY REPORTs and JPRS publications are not available. New subscribers should expect a 30-day delay in receipt of the first issue.

Both the DAILY REPORTs and the JPRS publications are on file for public reference at the Library of Congress and at many Federal Depository Libraries. Reference copies may also be seen at many public and university libraries throughout the United States.

LC