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STABILIZING THE SOVIET ECONOMY

by

William Nordhaus

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What is to be Done?

Proposals for the Soviet Transition to the Market:

Stabilizing the Soviet Economy

Contribution by William D. Nordhaus

STABILIZING THE SOVIET ECONOMY

William Nordhaus*

Unfortunately for a considerable period of time in the USSR there has been some kind of "taboo" on the very use of the term inflation which was considered incompatible with the nature of socialism.

Khandruev [1990]

Courses in Marxist-Leninist ideology...have been abolished....The number of required courses has been reduced and new professors, some back from years in exile, are teaching new courses like macroeconomics.

"New Courses and Even Votes at Czechoslovak Universities," New York Times, March 1990.

The proposals in our policy memorandum on economic stabilization--a restrictive monetary policy and a fiscal policy that eliminates the government deficit--are shaped by our view that the Soviet Union today faces a mounting economic crisis. As we emphasized in our discussion in the policy memorandum, problems include issues of inefficient economic structures, distorted prices, large macroeconomic imbalances, divided government, and lack of popular support for steps to stabilize and restructure the economy. The government budget deficit is unsustainably large, incomes are rising much more rapidly than

*Although this chapter is based in part on the discussions of the Study Group that met in Sopron, Hungary in August, 1990 and on discussions at the Study Group Chairmen's Meeting held in New Haven, Connecticut in November, 1990, the views expressed here are the author's responsibility.

output, open and repressed inflation is worsening, and there is a flight from currency. For the first time in recent history, national output is actually falling.

As difficult as these familiar economic ailments appear, they pale beside the awesome task of making a transition from a centrally managed to a decentralized market economy and society. In late 1989 and early 1990, the leadership of the Soviet Union had apparently decided to scrap the administrative model of economic organization and to adopt, as soon as is feasible, a market economy.¹ But, in the face of the momentous implications of such a choice, the central leadership faltered and chose instead to reimpose central political and administrative controls, relegating the market economy to a vague and distant vision. Nonetheless, many economists, members of the intelligentsia, and Republican leaders believe that adopting the

¹An early and moderate plan proposed a staged transition from the administrative system to the market in a process guided by central authorities. (See Radical Economic Reform: Top Priority and Long Term Measures, A Report presented by L. Abalkin, Deputy Prime Minister, to the Organizing Committee of the All-Union Conference and Workshop on the Problem of Radical Economic Reform. [Moscow, USSR, 1989]). Also see E. Yasin, of Modern Market Institutions and Problems of Economic Reform," Paper presented to an IIASA Conference on Economic Reform and Integration, (Laxenberg, Austria, 1990) for an economic interpretation. After the Abalkin Plan had run aground, a more radical approach was contained in the Shatalin Plan. This was initially endorsed by both Gorbachev and Yeltsin, but the former backed off his support and turned to a tightening of the administrative screws in late 1990. See Transition to the Market, A Report of a Working Group formed by a joint decision of M. S. Gorbachev and B. M. Yeltsin. (Moscow, Printed and Translated by the Cultural Initiative Foundation, 1990). Henceforth cited as the Shatalin Report after Academician Shatalin, head of the task force.

market model quickly is vital for the economic health of the Soviet people. The question is not whether, but when and how.

The search for the road to a market economy raises fundamental, indeed unprecedented, economic questions for the leaders of the Soviet Union and its republics: should reform begin with the budget, with privatization, with capital markets, or with liberalizing prices? Should reform begin with budget reform or monetary reform to prevent a price-wage-price spiral on decontrol? Or should price inflation and wage controls be used to reduce real aggregate demand? Should there be a first step to get prices close to the market before letting prices go? Or is it hopeless at this late date to try to guess the "right" market price? Should prices be decontrolled now, so that incentives to production are enhanced? Or should the monopolies be broken up first to prevent the exercise of monopoly power? This list could be multiplied indefinitely but will give the flavor of the unpleasant dilemmas facing Soviet reformers.

These dilemmas recur in all aspects of the reform process, but they are particularly relevant to issues of stabilization and underlie the macroeconomic measures proposed in the policy memorandum and elaborated on in this chapter. More than in the other chapters, we must distinguish between measures immediately preceding economic reform and those necessary once reforms have been adopted. As with the other chapters and as the policy

memorandum stresses, the proposals here require the simultaneous implementation of all the major measures listed in the policy memorandum. As we said there, "The measures must be taken simultaneously and in view of the crisis as soon as possible....Each of the measures reinforces the others. If adopted together, the five measures can be successful; if adopted singly or over time, they are doomed to failure."

I. EXISTING ECONOMIC CONDITIONS

A. Historical developments²

On the whole, the financial and budgetary situation in the Soviet Union was relatively healthy until the mid-1980s. Beginning in 1985, and accelerating up until today, there has been an increasing overall disequilibrium arising from a combination of policy and external factors. The major developments over the last decade were the worsening budget deficit, the acceleration in the growth of incomes, a continued deterioration in the growth of output, and, most recently, a

²The analysis in this section relies in part on the contributions of the Soviet members of the Sopron study group, and the papers by Gaidar and Kagalovsky and Khandruev. (Ye Gaidar, "Financial Crisis and Political Problems of Economic Stabilization in the USSR" and E. Kagalovsky and A. Khandruev "Economic Stabilization: Monetary and Fiscal Policy", Papers presented at an IIASA conference on Economic Reform and Integration, Sopron, Hungary, August, 1990).

flight from currency and acute shortages.³

1. Income growth. A new development over this period was the acceleration in incomes, primarily due to the rapid rise in wage payments by enterprises. The growth of wages (measured by the average monthly pay of workers and employees) rose around 3 percent per year in the period up to 1987; wage rates rose 8 percent in 1988, 9 percent in 1989, and 10 percent in 1990. Over the period 1980 to 1990, the average wage in the state sector rose from 168 to 265 rubles per month. The reasons for the rise in wages are complex but are grounded fundamentally in the sharp growth of bank balances of enterprises and liberalization of controls on enterprise wage funds.⁴

2. Budget. On the budgetary front, a number of decisions and events led to an increase in the budget deficit since 1985. The anti-alcohol campaign decreased revenues sharply, the fall in oil prices decreased oil export revenues by almost 50 percent in

³The literature on the macroeconomics of administrative economies is small but is doubling every year. A thoughtful essay, filled with interesting data and observations, is contained in Gur Ofer, "Macroeconomic Issues of Soviet Economic Reforms," in Olivier Blanchard and Stanley Fisher eds; NBER Macroeconomic Annual, 1990, (MIT Press, Cambridge, Mass., 1990).

⁴Most studies omit consideration of income earned from private sources, either domestic or foreign. Gregory Grossman ("Roots of Gorbachev's Problems: Private Income and Outlays in the Late 1970s," in U.S. Congress, Joint Economic Committee, Soviet Economy in the 1980s: Problem and Prospects, Washington D.C., Government Printing Office, 1987) reports on surveys suggesting that private incomes were perhaps one-third of reported incomes, and moreover that private incomes grew rapidly during the 1980s.

1986, and the rise in wages led to increasing subsidies to enterprises. In addition, because wages per unit output, and therefore unit costs, were rising for enterprises while prices were frozen, government subsidies to enterprises rose sharply in recent years (primarily to food-processing enterprises). Budget subsidies for food and non-food retail goods in 1990 totalled around 24 percent of sales. On food alone, government subsidies are more than three-quarters of the value of food sales.

3. Declining output growth. The rapid rise in the budget deficit and in incomes led to a sharp increase in aggregate demand. During this period, there was, in addition, a continued deterioration in the growth of real output. The exact growth rates of Soviet output are controversial, and Table 1 shows a recent comparison of growth estimates from different sources. According to official and unofficial data, there has been a further slowdown in growth in the last five years, and the government has projected a 4 percent decline in Gross Material Product in 1990.⁵

⁵A recent survey of economic conditions with recommendations for reforms is contained in International Monetary Fund, International Bank for Reconstruction and Development, Organization for Economic Cooperation and Development, and European Bank for Reconstruction and Development, The Study of the Economy of the USSR: Summary and Recommendations, A study undertaken in response to a request by the Houston Summit (Washington, 1990) p. 4. Henceforth cited as IMF Report.

Table 1
Growth in National Output in the Soviet Union

A. Historical Data

(Average Annual Rates of Growth)

Period	National Income			Gross national product		
	Soviet official	CIA	Selyunin-Khanin	Aganbegyan	Soviet official	CIA
1961-1965	6.5	4.8	4.4	---	---	4.8
1966-1970	7.8	5.0	4.1	5.6	---	5.0
1971-1975	5.7	3.1	3.2	4.0	---	3.1
1976-1980	4.3	2.2	1.0	2.1	---	2.2
1981-1985	3.6	1.8	0.6	0.4	3.9	1.9

Source: P. R. Gregory and R. C. Stuart, Soviet Economic Structure and Performance, Fourth Edition, Harper and Row, 1990, p. 389.

B. Recent Data

	Growth in Net Material Product (average percent per year)
1976-80	4.3
1981-85	3.2
1986	2.3
1987	1.6
1988	4.4
1989	2.5
1990	-4.0

Source: IMF Report, p. 4.

Why did growth slow so dramatically in recent years? Numerous causes are given for the slowdown in the period up to 1985: a decrease in the growth of inputs (depletion of low-cost resources such as oil, aging of the capital stock, and deterioration of labor discipline); lowered technological change and efficiency (because of bias against innovation in the planning system, concentration of investment in agriculture, and diversion of R&D activities to the military); exogenous shocks (poor weather and declining prices of oil and other raw materials); and greater complexity of economic activity (with a greater number of products and greater technical complexity).⁶

The actual decline of output in the last year probably stems from a different origin than the longer-term decline in growth. It is likely to be the result of bottlenecks, reduced labor and administrative discipline, and shortages of materials in key industries.

4. Shortages. The conjunction of rapidly growing demand, fixed retail prices, and stagnant potential output has led in the last year or so to severe repressed inflation and increasing shortages. As incomes rise with fixed prices, aggregate demand in constant prices outpaces potential output. In a free market, the

⁶ See Herbert Levine, "Possible Causes of the Deterioration of Soviet Productivity Growth in the Period 1976-1980," in U.S. Congress, Joint Economic Committee, Soviet Economy in the 1980s: Problems and Prospects, (Washington, D.C., Government Printing Office, 1982).

result would be a rise in prices--inflation--sufficient to ration out the increased demand. Since most Soviet prices are fixed, there is of course minimal official inflation. But as incomes rise more rapidly, the excess demand gets worse and the shortages grow worse. The shelves get barer and barer, lines get longer and longer, and the few goods left in the state stores are rusty tins and rotten cabbage. The free-market or black-market prices rise sharply, the street price of hard currency diverges even more from the official rate, and the free prices in farmers' stalls rise sharply.

Once shortages appear, the dynamics of speculative hoarding gear up as people begin to worry about the value of their rubles and begin to use goods as a store of value. In this framework, it is not surprising that the Soviet economy is experiencing worsening shortages and the disappearance of goods from the stores, and is driven to ration basic goods like soap, meat, cigarettes, and sugar. By an extension of Gresham's Law, overvalued things (rubles) are driving out undervalued things (goods). In other words, the ruble is less and less convertible internally by Soviet residents into Soviet goods and services.

The breakdown of both retail and inter-enterprise markets with growing excess demand is described in the Chapter on Price Deregulation. At the retail level it takes the form of multiple forms of rationing, great waste in queuing, and even barter. A recent survey found that the average Soviet adult spends 1.4

hours a day waiting in line (which, if accurate, would equal about one-fourth of total working time). Under the pressure of shortages, alternative distribution channels are sprouting up. A recent study found that only 40 percent of food is currently distributed in state stores, with the balance distributed in enterprise stores, farmers' markets, special stores serving veterans, invalids, and pensioners, and so forth. At the wholesale level, there had developed by late 1990 a complicated set of barter markets for wholesale goods, in which trades between enterprises were conducted in free-market barter terms of trade. Such a breakdown of the official distribution channels is a clear sign of repressed inflation.

5. Effects of partial liberalization. Tentative and partial liberalizations have served to destabilize the economy rather than to contribute to an effective market economy.⁷ Virtually every attempt to liberalize has encountered the law of unintended consequences, whereby solving one problem has created two more.

An example of a partial liberalization that proved particularly pernicious was the freeing up of enterprise wages funds, which allowed a major increase in the incomes of the population. (See Table 2.) The impact of this upon incomes and

⁷A useful early account of the economic philosophy underlying perestroika is contained in A. Aganbegyan, The Challenge: Economics of Perestroika, (The Second World, Hutchison, London, 1988).

the budget deficit was described above. The government recognized the peril from the growth in wage income and instituted the "tax on the wages fund," which is an increasing tax based on the rate of increase of total wage payments. This tax (which was imported from Hungary) was in part an attempt to substitute market-like mechanisms for administrative controls in a philosophy reminiscent of recommendations for tax-based incomes policies in the West.

Table 2

USSR: Incomes and Prices

(annual growth in percent)

	1986	1987	1988	1989	1990 (estimates)
Retail price index	2.0	1.3	0.6	2.0	4.8
Average monthly wage	2.9	3.7	8.3	9.4	10.0
Household money incomes	3.6	3.9	9.2	13.1	14.5
Household purchases of goods and services	2.8	3.1	7.2	9.5	13.7
Saving rate (percent of disposable income)	6.9	7.6	9.2	12.0	12.9

Source: IMF Report, p. 49.

The new approach of the wages tax immediately raised further problems. Its design was flawed because it taxed the wages fund (total wages) rather than average wage rates, thus introducing the inflexibility described in the chapter on the Social Costs of Unemployment. The wages-fund tax was largely ineffective in reducing wage growth because of successful pressure by enterprises to be exempted and from the enterprises' ability to absorb the tax through higher subsidies.

B. Economic perspectives with regard to changes in output

This narrative leads to the following diagnosis of the macroeconomic problems that face the Soviet Union as it attempts to make the transition to a market economy. Overall, the current situation is best described as one of severe repressed inflation. Analytically, three separate issues must be addressed in stabilizing the economy.

1. Stock problem. The "stock problem" denotes the fact that, because of past budget deficits and accumulations of liquid assets by households, household assets today exceed the amount, relative to incomes and prices, that households would desire to hold. This is often called the "ruble overhang."⁸ To extinguish

⁸It is technically incorrect to say that there is a monetary overhang in the sense of involuntary holdings of money and other liquid assets. There are goods available at high prices in

the ruble overhang would require either a reduction of household and enterprise liquid assets or a rise in the aggregate price level. (See Table 3 for data on the volume of money and credit.)

farmers' markets and in the black market, so consumers can in fact convert their money into some goods. It would be accurate to say that monetary assets are excessive at official prices for goods that are subject to shortages and rationing. Put differently, the velocity of money may seem high when calculated at official incomes (in fact, by this technique, velocity has risen by about 35 percent through 1989). If, on the other hand, we calculate velocity by using black-market prices, velocity may actually have fallen over the last decade.

Table 3
USSR: Money and Credit

(annual average growth in percent)

	1981-85	1986	1987	1988	1989	1990 (estimate)
Currency	6.0	6.1	7.8	13.6	19.5	21.5
M1	6.8	7.6	15.7	15.4	14.3	13.4
M2	7.5	8.5	14.7	14.1	14.8	15.3
of which:						
Households	7.2	9.4	9.8	11.3	15.0	13.5
Enterprises	8.7	5.5	32.6	22.5	14.5	20.0
M2 (percent of GDP)	---	51.2	56.9	61.2	65.5	72.5
Total credit	8.7	4.2	6.6	11.3	11.2	10.9
of which:						
to firms	8.7	-13.3	-5.0	-6.8	-3.8	-1.3
to government	8.7	18.8	40.3	46.0	30.0	17.2

Source: IMF Report, p. 49.

In a free-market economy, prices would tend to explode upward under the pressure of large monetary assets. The equilibrium price level with liberalized prices would be considerably higher than today's level. There are a number of different ways to estimate the extent of the disequilibrium. An illustrative calculation is the following: The ratio of household liquid assets to income was in 1989 around .95, while the same ratio was .70 in the 1976-82 period (which we might think a "normal" period). Assuming no budgetary impact of a price liberalization, this would suggest that a rise of prices and incomes of 35 percent would be necessary to bring liquid assets down to "normal levels." Other estimates, which include indexation and wage response, suggest a rise of up to 150 percent as a result of price decontrol. A third set of estimates of the price disequilibrium comes from black-market prices, which are often two to three times official prices. While no definitive answer to the extent of overhang is possible, there is little doubt that a price explosion of serious proportions would occur when prices are freed.

2. Flow problem. In addition to the stock problem, the Soviet economy currently has a serious "flow disequilibrium," which is seen in a large budget deficit that is effectively automatically monetized. Semi-official data indicate that the on-budget deficit (expenditures less receipts) is in the order of 10 percent of GNP.

In addition, current pressures for expanded social programs seem likely to increase the deficit. Estimates are that the cost of enacted or proposed social legislation (regarding pensions, new pay scales, social security, and indexation, for example) would total approximately another 10 percent of GNP. In addition, there are significant "off-budget" expenditures (such as unrepaid credit advances to the farm sector) which add substantially to the budget deficit. Because of the structure of the Soviet banking system, these deficits are monetized immediately in the sense that all net payments to households are turned into cash or savings accounts.

At first glance, a budget deficit around 10 percent of GNP would not appear extraordinarily large. The danger lies not only in the size of the deficit but in the fact that there are no significant non-monetary assets (i. e., financial assets aside from M_2) in which the rapidly accumulating government debt can be marketed. In effect, the ruble overhang is accumulating at a rate of about 10 percent of GNP per year.

3. Speculation and shortages. Recently, there has been a significant outbreak of speculative hoarding and flight from the ruble. Particularly after the government's ill-designed announcement of future price increases in May, 1990, the shelves in state stores have been cleaned out of goods. Hard-currency prices of the ruble appear to have fallen in 1990 (from 10 or 15

rubles to the dollar in early 1990 to 20 to 30 rubles to the dollar in summer 1990), another indication of price disequilibrium and speculative panic.

According to Soviet experts reporting in mid-1990, relatively little dollarization has occurred, with unofficial estimates of the dollar balances of the Soviet population being around \$0.4 billion (as compared with estimates of \$10 billion for Poland in recent times). On the other hand, estimates in the Shatalin Report indicated that \$2 billion in hard currency are in circulation.⁹

Other evidence of shortages is presented in a survey by Noren, which indicates that shortages have worsened considerably in the late 1980s through the mechanism described above.¹⁰ Noren shows that the increasing problems that occurred in Soviet consumer markets through the middle of 1990 were due to increased demand and not decreased production. In fact, production of consumer goods rose steadily through the middle of 1990.

Other data confirm the worsening shortages on consumer markets. One index is calculated on the basis of a survey of emigrants from the USSR over the period 1981-89 on the extent to

⁹Shatalin Report, p. 61.

¹⁰James H. Noren, "The Soviet Economic Crisis: Another Perspective", Soviet Economy (Vol. 5, No. 1, January - March), pp. 3-55.

which 22 goods were available in state stores and collective farm markets. The percentage of respondents reporting regular availability of the 22 foods declined from around 50 percent in 1983-84 to 27 percent in 1989. Availability declined in all regions covered by the survey. Another index of shortage was the extent of rationing. A survey indicated that over the period 1987-89 the extent of sugar rationing rose from 5 percent to 95 percent of respondents, while for butter the extent rose from 40 to 60 percent. A third indicator of excess demand is the black market price of the ruble, which also rose sharply in the period from 1985 to late 1990. In all these cases, it is likely that the shortages were a combination of excess flow demand and some speculative hoarding in anticipation of either price changes or asset confiscations.¹¹

C. Conclusions

All these conditions lead to the following two tentative conclusions.

First, the time is short. A sense of urgency pervades our policy memorandum and all the chapters. There is a significant risk that the Soviet economy is on the verge of a breakdown or of

¹¹The figures cited in this paragraph are largely from Noren, op cit.

hyperinflation. There is no time for half-measures or for carefully planned stages, sequences, and steps. Decisive actions must be taken quickly or the distribution system may become paralyzed.

Second, given the complete irrationality of the current pricing structure and given the opportunities for arbitrage, the best course may be not to try to reform prices, introduce new plans, unify exchange rates, or move to some halfway house to the market in the short run. Rather, the only effective approach is to have a complete and simultaneous systemic change to the market. That is why we stress the interdependence of the reforms we propose. They must be taken simultaneously and quickly.

II. GENERAL POLICY CONSIDERATIONS

In designing our recommendations for economic stabilization, we had the following considerations in mind.

In designing the stabilization policies, the goal is to replace the centrally managed, administrative system with a decentralized market in a way that minimizes the amount of social cost, pain, and disruption. This means that unemployment should be kept to relatively low levels (those normally found in market

economies); that prices should be free to adjust to supply and demand; that the growth of the economy and particularly living standards should be enhanced; and that prices should be stabilized.

The major threat to the economic goals will be the threat of a severe inflation at the time when prices are liberalized. In addition, there is likely to be a period, hopefully short but perhaps extended, of irreducible frictional unemployment as people are redeployed from their current jobs to ones that are consistent with an efficient market economy.

The program presented here has been laid out to reduce the chances of hyperinflation while insisting upon the primary goals of promoting markets and enhancing long-run economic growth.¹² Any program to stabilize the economy will be extremely difficult; indeed, at many points we are told that the program is impossible ("nevozmozhno"). But the lessons of stabilization policies around the world is that, when governments have their backs to the walls, when hyperinflation or economic ruin threaten or are upon governments, then everything we recommend is possible by the test that some countries have actually taken the recommended

¹²For a recent study of the dynamics of hyperinflations, with many lessons for the Soviet Union and other socialist countries, see Rudiger Dornbusch, Federico Sturzenegger, and Helger Wolf, "Extreme Inflation: Dynamics and Stabilization", Brookings Papers on Economic Activity, 1990:2, pp. 1-64.

steps.¹³

A final point is that the program must be simple. It must be easily understood by policymakers and easily conveyed in the media. It must not involve complicated multi-stage strategies like the chess game of a Grandmaster or intricate rationales understood only by Ph. D. economists. It must be robust enough to withstand unexpected twists and turns of politics, economics, the weather, and oil prices. (This last sentence was written on the day that Iraq invaded Kuwait and drove oil prices up by over 50 percent, but that fact changed very little in this chapter.)

III. BACKGROUND ASSUMPTIONS

Any plan to stabilize the economy must begin with some background assumptions about the goals of the effort along with the political situation.

A. Political assumptions

The political situation in the Soviet Union changes

¹³Many of the lessons of earlier stabilization programs apply to administrative economies on the road to a liberalized system. An exhaustive review of the history of liberalization and stabilization programs is contained in Demetries Papageorgiou, Armeane M. Chokai, and Michael Micacly, "Liberalizing Foreign Trade in Debeloping Countries: The Lessons of Forty Years Experience", The World Bank, (Washington, mimeo, 1990).

virtually daily, but we need some assumptions about the political structure in which the economy is operating. For purposes of this report, and not in any way constituting recommendations, we proceed by assuming certain fundamental political elements, as follows. The Soviet Union is assumed to consist of a Union of Republics and to be more or less the same size as today. The conclusions would not be affected, in fact, were the economic unit to consist of only half or two-thirds of the present population and resources.

There would be a common currency in all areas, managed by a single central bank. In this regime, the central bank would be responsible for monetary policy. The country is assumed to consist of a free-trade region, with no internal tariffs or border controls. There would be free migration of goods, labor, capital, and finances within the country. There would be a common external policy, with common tariffs, quantitative restrictions, administration and regulations. Exchange rate policy would be determined by the central government.

Aside from these key assumptions, the basic approach is consistent with considerable variation in approaches between different levels of government. The structure suggested by the "500-day plan" or Shatalin Plan would generally speaking fit into the framework put forth here.¹⁴ There is a great deal of room

¹⁴Shatalin Report.

for alternative structures, such as different tax systems, ownership patterns, government expenditures, and social safety nets among regions. Variations of these issues will affect other parts of a transition to the market but are incidental to the stabilization issues addressed here.

B. Economic Assumptions

The recommendations put forth here contain certain presumptions about the evolution of the economy. We believe that it is likely that the economic crisis will continue and may even worsen. Through early 1991 the fundamental issues that are leading to increasing budget deficits, repressed and open inflation, and shortages are getting worse, not better. The lessons of hyperinflation and economic collapse from other countries suggest that when the population loses confidence in the currency and in economic policy, prices can begin to spin out of control very rapidly. Once the genie of hyperinflation is out of the bottle, particularly in countries with weak political structures, it may take years and a period of great hardship and austerity to get the genie back into the bottle. It is not possible to predict how fast the current economy may deteriorate. Perhaps the system cannot survive for a year; perhaps it can creak along for some time given the inertia and residual good will of the population or political repression or both.

In addition, the effectiveness of a stabilization policy will interact with policies in other areas. In order to implement the recommendations on stabilization, we make the following assumptions about policies regarding prices, external policies, and other areas:

□ It is assumed that there will be an effort to set up the preconditions for the market in terms of the necessary laws to operate a civilized market economy. These preconditions will be discussed in a later section.

□ The most important assumption, recommended vigorously in the Price Deregulation Chapter and strongly supported here, is that virtually all prices should be decontrolled simultaneously and virtually completely. The particular importance of this step for stabilization is discussed below. The day at which prices are decontrolled is called "D-Day."¹⁵ Complete demonopolization and privatization are clearly highly desirable, but D-Day should definitely not wait for them to be completed.

□ With respect to opening the economy, the approach in the subsequent chapter on this topic supports and strengthens our

¹⁵A word on terminology. We chose the term D-Day to represent "Deregulation Day." In the West, D-Day designates the Allied landing in Normandy in June 1944; in the Soviet Union that day is known as "the day of the opening of the western front." So perhaps the modern D-Day will be known as the day of the opening of the eastern market.

stabilization measures. As explained below, we recommend that the program for opening of the economy be implemented exactly at D-Day.

□ Once again we stress that it is essential that enterprises must face hard-budget constraints at D-Day. Unless they face hard-budget constraints, it will be difficult to ensure fiscal discipline and to contain inflation.

IV. POLICY RECOMMENDATIONS: POLICIES BEFORE D-DAY

Our policy recommendations fall logically into two stages. A first set of proposals applies before D-Day, that is, before prices are liberalized and before the economy is opened. A second set of steps apply to the period following D-Day. We discuss each of these two stages in turn.

In the period between now and D-Day, there are basically two objectives: to create the essential preconditions for D-Day and to keep the ship afloat until D-Day.

A. Preconditions of the Market

What are the preconditions of the market that must be established before freeing prices and opening the economy? These

topics are discussed in other chapters, but the needs are seen somewhat differently by those concerned with stabilization and we therefore address this issue briefly here.

In general, we believe that the absolute preconditions for the market are in fact relatively few and that it would be a mistake to wait until every law was perfected and every program finely honed. It is not realistic to try to establish a finely tuned commercial code, a full set of stock and futures markets, a carefully crafted social insurance system, and the like. Rather, it is necessary to establish the most rudimentary framework for the evolution of a market economy. We think that these can be done relatively quickly.

Among the absolute preconditions are:

□ Enterprises must have directors who have the authority to set prices, output, and wages as well as to hire and fire workers and to buy, sell, or borrow financial or tangible capital. It is desirable to have these decisions made by autonomous, financially responsible corporations; these would in the first instance be public and then be privatized. This step would ensure the de jure (and, at least partially, de facto) separation of the enterprises from the state. But whatever the legal structure, somebody (or some body) must have the authority to make decisions.

□ The government must enact and enforce laws of property. There must be clear rules on who owns what, rules for ownership transfer, and a system of contract enforcement to encourage longer-term agreements and the development of private capital markets. Creditors must have the right to seize quickly the assets of bankrupt debtors.

□ There must be banks who perform rudimentary banking functions and refuse to honor drafts, obligations, or checks written by enterprises or people who have no money.

□ There must be rules of bankruptcy and liquidation to govern what happens when the claims on an enterprise exceed its liquidation.

□ Above all, there must be hard-budget constraints. This means that there must be a generally accepted system of accounts, a unit of account, and a limit on credit. Enterprises must know that unprofitability ultimately means bankruptcy for the firm and economic ruin for the managers.

These five conditions are what we would call the preconditions for a primitive market economy. In addition, a civilized market would benefit from such measures as unemployment insurance, a social safety net, a stabilized budget system, a full menu of financial assets, and so forth. But markets have

operated without these modern features and they are not, in fact, absolute preconditions to the emergence of the market. Moreover, the Soviet Union may not be able to afford either the time or the financial resources to establish these loftier objectives.

B. Stabilization Policy Before D-Day

In the period before D-Day, the major goal of economic policy should be aimed at correcting the flow problem, or reducing aggregate demand. The primary tool for accomplishing this is through reducing the budget deficit. There is in addition a subsidiary role for monetary policy and incomes policies.

1. The first priority during the transition is to reduce the budget deficit. Of course, no group would like to see its taxes raised or its subsidies cut. As a result, reducing the deficit faces substantial political obstacles--indeed, the difficulty faced in reducing budget deficits is a problem common to the Soviet and to many Western economies. But one way or another, it is necessary to curb excessive deficits if a stable market economy is to be achieved.

We are not in a position to analyze specific suggestions in detail, and political factors must obviously be taken into account. Yet, certain deficit-reducing actions stand out. One of the early targets should be reduction or removal of subsidies.

Subsidies undermine market discipline, distort prices, and lead to wasteful use of resources. We will return later to the point that there are generally more efficient ways of achieving the objectives of the subsidies.

Another target for budget cuts is central spending on investment. Because of the way investment is allocated, the outcome is often highly inefficient. For example, a substantial amount of the investment projects are simply abandoned. Estimates today are that unfinished construction is today equal to almost one year's investment expenditure.¹⁶

According to most estimates, a substantial amount of spending (and an even larger fraction of effective resources) continues to be channeled into defense, particularly military R&D and defense procurement. Most estimates indicate that defense spending has not decreased at all. Indeed, such reductions might produce a double "peace dividend," for they would strengthen the arguments of those in the United States who wish to reduce defense spending but are blocked by proponents who point to continued high levels of Soviet procurement. Finally, in both the United States and the Soviet Union, the defense establishment siphons off a substantial fraction of the prime scientific and

¹⁶Shatalin Plan, pp. 113-118 for a discussion of construction in the Soviet Union.

engineering talent, a resource that is increasingly vital to economic health in a technologically sophisticated world. Reducing military R&D and devoting these resources to civilian activities would provide double and triple benefits to both countries.

The allocation of hard currency might be immediately reformed, say by hard-currency auctions; some believe this would reduce the budget deficit by between one-third and two-fifths. Central expenditures in housing and agriculture might be cut sharply (the potential for reduction here being almost one-half of the budget deficit).

2. Credit policy has traditionally been passive in the Soviet Union, based on the historical premise of the "real-bills doctrine," wherein credit is given only on evidence of invoices or warehouse receipts of goods. In principle, credit policies of Gosbank could be reoriented in the period before D-Day so as to tighten the screws on enterprise spending. This could be done, for example, by segregating wage and non-wage accounts and freezing wage accounts, or by severely tightening overall enterprise liquidity by freezing a certain fraction of enterprise balances. An alternative approach would be to apply overall credit limitations to the enterprise sector, although this approach would have the difficulty of requiring some kind of non-price rationing system.

It is not sensible to try to attempt a complete reform of an administrative banking system in the short time before D-Day. Rather, we recommend using the existing system in the most effective way along with promoting the growth of a private banking sector. This recommendation is based first on the view that an attempt to overhaul the banking system to improve the command economy is probably a futile exercise as it is likely to lead to unintended consequences and will waste the time of financial reformers. Moreover, such steps are unlikely to reduce markedly the ruble overhang. A better use of time and energy would be to prepare for a transition to the market by training bankers and preparing to privatize the commercial banking functions.

3. Incomes policies are important in the initial transition period in order to slow the growth of wages and incomes. It is clear that the liberalization of enterprise rules (particularly, the effective abolition of targets for the wages fund) along with passive credit conditions allowed wages to outstrip production by a wide margin since 1985. In addition, the tax on the wages fund has not yet been effective in slowing wage growth.

The continued hemorrhaging of funds into wages is a serious threat to economic stabilization in the near term. The government should consider tightening controls over wages--either through a sharp tightening of the taxes on the wages fund or a tighter

credit constraints on enterprises. Unless wages are kept under control during the period of soft budget constraints, the possibility of keeping the ship afloat until D-Day is in peril and the dangers of hyperinflation after D-Day increase.

Another issue in the transition concerns the desire for guarantees or indexation during what will inevitably be a period of declining confidence and increasing open and repressed inflation. We recommend avoiding any kind of indexation, compensation, or other real-income guarantees during this period. They serve no economic function, are likely to be abrogated later, and generally will tend to destabilize the economy during the period after D-Day.

4. A major issue of economic reform in the period until D-Day concerns whether there should be attempts to undertake price reforms to bring the system closer to equilibrium. The Price Deregulation Chapter discussed in some detail why administrative or partial price reform is unworkable. On the whole, it is recommended that policymakers minimize the attempts to reform the administrative system in the period before D-Day. This is not an absolute prohibition, but rather a warning that attempts to rationalize or liberalize are as likely to be counterproductive as useful.

The reasons for this recommendation are three: First, there

is plenty to do in the near term just to prepare for D-Day. In particular, the program to establish the preconditions for the market is in essence trying to build an entire house in a day. It is better to concentrate all efforts on making the systemic transition than to waste time correcting an imperfect system. Reforming officially-controlled prices is like painting a house that is going to be demolished tomorrow. Second, it is clear that there are almost always unintended consequences of reforms and liberalizations (such as the wage boom that followed enterprise liberalization). In a situation that is so full of irrational prices and arbitrage opportunities, changes in the rules are likely to create all kinds of new problems. Third, many of the recommendations are ones that will hurt people by raising prices, thereby giving a bad name to economic reform and (further) damaging the political prospects of actually making the transition to the market. For example, a 20 percent increase in prices will not put goods on the shelves, so it involves all pain and no gain.

All these recommendations are somewhat complicated, so the major point to remember is the following: Before D-Day, economic policy should be directed to the infrastructure of the market, stabilizing the budget, and minimizing attempts to improve the present administrative economic mechanism.

V. STABILIZATION POLICY AT AND AFTER D-DAY

The next issue concerns the stabilization policy at D-Day. It should be emphasized that it is only possible to lay out the general recommendations at this time. Given the vast political and economic uncertainties, specific recommendations are not possible. Nonetheless, the general shape of recommendations are clear.

A. Timing and General Conditions

At or near D-Day, a number of measures will be introduced simultaneously to liberalize prices, open the economy, and introduce hard-budget constraints into economic decisions. The following are the important concomitants of the stabilization package:

1. When should D-Day come? The answer is, soon. Do not do it on January 1, however, for there may be turmoil and confusion, and it would be better not to have confusion at minus 40 degrees Centigrade. (Indeed, a grim joke circulating today is that, after four warm winters, the next cold winter will be the last winter of socialism.) Many believe that D-Day must be implemented in 1991 if the Soviet Union is to avoid hyperinflation or a breakdown of the distribution system.

2. The key steps taken on D-Day are the deregulation of prices in a substantial part of the economy and a hardening of budget constraints everywhere in the economy. The exact strategy for this was discussed briefly above and is described in the Price Deregulation Chapter. The strategic reason to have complete rather than staged liberalization is that, by allowing prices to rise sufficiently to clear markets, consumers will quickly see goods on the shelves. Thus, while D-Day will necessarily be accompanied by certain painful steps, such as inflation and a fall in real wages, one important benefit will be that at the inflated price level the devalued ruble will be convertible into domestic goods and services.

The proposition that freeing prices will produce goods on the shelves is not only, it should be noted, a theoretical economic proposition. Historical evidence in Germany in 1948 and Poland in 1990 indicates that a rapid liberalization of prices did in fact produce goods in stock almost instantaneously.¹⁷ By contrast, half measures, such as staged decontrol, run the risk of dispensing pain to consumers in the form of lower real wages without making goods available.

3. Some observers believe that it is at this point that

¹⁷A full account of the German recovery after World War II, along with details on the German monetary reform, is contained in Henry Wallich, Mainsprings of the German Revival, (Yale University, New Haven, Conn., 1955).

Western economic aid is likely to be most valuable. Given the current shortages and bottlenecks, along with the decline in production, price liberalization might lead to extremely high prices for certain goods in great shortage (as, for example, cigarettes, which last year were selling on the black market for 5 percent of weekly income per pack). To help smooth the transition, some believe that a modest amount of foreign aid might be used to help put goods on the shelves and to ensure that the prices of consumer goods are not exorbitant at D-Day.

Such aid, however, is not essential for our proposals. Indeed some analysts question the wisdom of any foreign economic aid to be devoted to consumer goods. Such a measure threatens to encourage unrealistic expectations at a time when the population must be encouraged to make the psychological transition to a market mentality. Moreover, they argue that whatever economic assistance is available might be better and more productively employed in training programs, technological transfer, and assisting foreign direct investment.

4. Credit for enterprises should be available only on a short-term basis and at positive (and initially probably high) real interest rates. Clearly, it is absolutely essential that any automatic credit link, whereby firms get whatever they need from the State Bank, be severed.

5. We believe that D-Day is the proper time to have an opening of the economy. This would involve a floating or market-determined exchange rate; a ruble that is freely convertible for current transactions; and elimination of all trade restrictions with the substitution of tariffs at a low and uniform rate.

In addition, stabilization measures will benefit from the undervalued exchange rate recommended in the Chapter on Opening the Economy. By undervaluing the exchange rate, business in the Soviet Union will look like a bargain to foreign investors, and Soviet goods will find an eager world market. It should be emphasized that the world market is enormous relative to current Soviet foreign trade. The world market in tradable goods and services is almost 200 times Soviet hard-currency exports. By ensuring that Soviet labor, resources, and goods are a bargain relative to world prices, foreign trade, and therefore integration into the world economy, will be hastened.

6. D-Day would also be the point at which the economy would be open to free entry in all lines of business (except operating missile systems and printing of money). The combination of opening the economy to foreign trade and opening of markets to domestic entry and competition would be a major contributor to competition. In addition, the freedom to engage in different activities and start up small firms would be a shock absorber for unemployment, real wage reductions, or other events that are sure

to accompany D-Day.

B. Stabilization Policies

Given the concomitants of stabilization listed above, we now turn to the measures proposed to stabilize the economy. Before listing the steps, it is important to note that moving to a market does not mean abandoning overall economic policy or "leaving everything to the market." It is possible to leave many of the individual decisions about prices, wages, and production to financially responsible firms. But prices and wages are still indirectly controlled by aggregative policies that exercise their influence through markets.

Putting this differently, in moving to the market it is necessary to effect a sharp change in the instruments of control of the economy from micro controls to macro controls. The general philosophy underlying these recommendations is that the approach to stabilization in an administrative economy is by microcontrolling individual magnitudes (individual prices, wages, credit lines, and enterprise budgets). In a market economy, these controls must be replaced by policies that macrocontrol fiscal, monetary, and other variables. Thus, instead of limiting the credit to particular firms, in a market economy the control is through the aggregate supply of money and credit available to the economy. This shift from micro control to macro control requires

simultaneously relaxing controls on the micro variables and imposing strict and disciplined control on the macro variables.

Fiscal Policies

1. The single most important condition for stabilization at D-Day is that government budgets be both tight and under control. The stabilization must be clear, adequate, and complete on D-Day. For simplicity, the target should be for a balanced budget.¹⁸ Obviously, the closer the country comes to a balanced budget, the better. If, however, the deficit is too large, then the deficit can lead to excessive growth in incomes and to the unstable dynamics leading to a hyperinflation.

2. We discussed above potential approaches to balancing the budget, and that discussion applies to the period after D-Day as well as before D-Day. A few other remarks apply to the longer-term fiscal structure.

The current structure of taxation is on the whole

¹⁸The concept of the budget differs among different countries. For simplicity, when we speak of the budget, we have in mind the most straightforward system, which is a "cash" concept. In this approach, which is the basis of the U. S. federal budgetary decisions, the deficit is simply the difference between all outlays (on goods, services, and transfers) less receipts (from taxation and sales of government enterprises). The receipts definitely exclude monetary creation, borrowing from either financial or non-financial sectors, and borrowing from the central bank.

economically viable. It will also be useful to make taxation of all enterprises uniform (state, private, and foreign). Moving to an European Community-style value-added tax would be useful in the medium run, but is certainly not necessary on D-Day.

However, the overall tax rates in the Soviet Union are high relative to levels seen in most market economies. The ratio of total taxes to GNP is in the order of one-half, and further amounts are implicitly taxed and transferred through price and allocation policies. It is unlikely that the Soviet Union could operate efficiently with as high a level of taxation as today. For example, taxes are about one-quarter of GNP in Japan and about one-third of GNP in the United States. Therefore, in cutting the budget deficit, some mild preference should be given to expenditure reduction as opposed to tax increases.

3. For expenditure cuts, the discussion in section II above will serve as a useful point of departure for detailed analysis. Again, we emphasize that, in a market economy, subsidies to individual goods and services should be kept to a minimum. It may be desirable to have exceptions to the general rule to abolish subsidies, particularly with respect to necessities like food for low-income households; a civilized society should protect the worst-off, such as pensioners, from the ravages of inflation or relative price changes. Measures to protect these groups are discussed in the chapters on Price Deregulation and the Social

Costs of Unemployment.

4. In addition to the need to strive for budget balance, it is necessary to reform the structure of the budget. More precisely, it is crucial that the structure of the budget should be such that inflation decreases rather than increases the real budget deficit. This condition, which we call "dynamic deficit stability," is a somewhat technical but critical point and will be elaborated upon here.

As prices are liberalized, this will have an effect upon both the real revenues and real expenditures (by "real," we mean those nominal or ruble values divided by an appropriate price index). Expenditure programs that are indexed tend to maintain their real spending levels as prices rise, while the real spending on non-indexed programs erodes as prices rise unless they are boosted by discretionary actions. In addition, the real value of taxes tends to erode in periods of rising inflation both because many taxes are in specific terms (i. e., rubles per kilo) and because they are paid with a lag (of say a month, quarter, or year).

The danger of dynamic deficit instability arises if the real value of taxes falls more sharply than the real value of spending when prices rise. This would imply that the real budget deficit would rise, which would tend to produce more spending, more

inflation, and increase yet more the real budget deficit. This line of reasoning shows that, to avoid a spiraling inflation, it is necessary that the structure of the budget be such that the erosion of real revenues with inflation be less than the decline in real government expenditures.

We did not have the occasion to examine the fiscal structure in detail, but three concrete recommendations will help to ensure dynamic deficit stability. The most important recommendation is to avoid the temptation to use "real" budgeting instead of "nominal" budgets. Real budgeting allows an automatic adjustment of payments when the price level rises. This is commonly used for transfer programs (such as pensions) and is also sometimes used for other government programs. We suggest that budgeting remain in nominal (ruble) terms and that beneficiaries must return for further discretionary increases to compensate for any price increases.

Two other technical recommendations will also help promote dynamic deficit stability. First, all "specific" turnover or other taxes should be replaced with percentage or ad valorem taxes. (A specific tax is one denominated in nominal (ruble) terms per unit, while an ad valorem tax is one set as a percent of the product price.) This replacement will help prevent the erosion of real taxes when prices rise. Secondly, we suggest that the tax-payment lag be shortened. Taxes should be paid

contemporaneously on wages (say with a week or at most a month lag), and quickly on other items as well, rather than with a three-month lag.

5. There is an important interaction between stabilization policy and price deregulation. This arises because of the inherent lag of administered prices behind rising costs, which leads to greater and greater subsidies. To understand this dilemma today, recall the state of price reforms. The Soviet Union has already freed many prices. As of November 15, 1990, retail prices were in principle freed of central control on many consumer durables and luxury items. On January 1, 1991, all wholesale prices were in principle freed of central control, along with prices at which enterprises sell to one another.

Retail prices, however, remain controlled for items making about three-quarters of retail sales, although there are plans for a reform of retail prices. With retail prices fixed below market-clearing levels, the government must provide subsidies for the difference between wholesale and retail prices. Such subsidies are estimated to add 200 billion rubles in 1991 to the already swollen government deficit (this being about 20 percent of GNP).

Price deregulation will by itself therefore remove one of the major elements contributing to macroeconomic instability. Only by freeing prices will it be realistically possible to

eliminate the need for subsidies for enterprises whose rising costs are higher than their revenues based on frozen prices.

Monetary Policies

6. In the longer run, the burden of stabilization policies will necessarily be placed on fiscal policies. Monetary policies can, however, play an important role in the short run.

With respect to credit policies, a substantial tightening of credit will be possible and desirable when firms are placed on hard-budget constraints. Once individual enterprises are subject to hard-budget constraints, Gosbank should make credit available only to firms that can repay credits; this implies curbing credits to unprofitable enterprises. It is probably unrealistic to completely shut down credits to unprofitable enterprises, but they should be forced to restructure their operations with a view to attaining profitability in a short time.

We emphasized above that stabilization requires replacing controls on individual enterprises with controls on economic aggregates. In monetary policy, this means that the banking system must place overall credit limits on enterprises, much as Western central banks do today. In the beginning, before prices and wages have been stabilized, it is likely that banks will charge high interest rates to enterprises under a regime of tight

credit. In the period surrounding liberalization, real interest rates (equal to money interest rates less the rate of inflation) must be positive. Based on the experience in other countries, this implies that money interest rates must be well above today's level, perhaps 20 or 40 percent per year or even higher. After inflation has stabilized and the government budget is safely under control, interest rates can be reduced to levels seen in market economies.

In the transition period, there is likely to be a mixture of enterprises on hard and soft budget constraints. It will be necessary to cordon off the two sectors so that the lack of discipline in the one sector does not infect the other. For example, it may be useful to allow private firms and deregulated, financially responsible firms to develop an interfirm loan market for funds. But there should definitely be strict limitations on transactions between the financially responsible sector and the less constrained sectors.

Our proposals envision that monetary and credit policies will be administered by the existing banking system. It is not necessary to privatize the banking system in order to have tough credit policies. Rather, the state banking system must be subject to overall guidelines on credit aggregates, interest rates, and lending guidelines.

In the longer run, it is clearly desirable to develop a private banking system to replace the state-run retail banks. Foreign banks may be able to lend their expertise to this task. But banking is a most complicated industry, and establishment of a private banking system will require careful thought and is unlikely to take over the credit-allocation function in the short run.

7. The steps taken up to now will in principle solve the flow problem of the budget deficit. In addition, price deregulation will, at high prices, put goods on the shelves. There remains, however, the difficult issue of the ruble overhang. At D-Day, household assets are likely to exceed the value of assets that households would desire to hold at the current average price level. In order to reduce the real value of household assets--that is, to extinguish the ruble overhang--either prices must rise so that the real value of household liquid assets declines to the desired level, or the assets themselves must be reduced through sterilization or monetary reform.

Some advocate a monetary reform to solve the ruble overhang.¹⁹ An idealized monetary-reform proposal might operate as follows: on or around D-Day, the government might convert all

¹⁹A useful review of the history and theory of monetary reforms is contained in Rudiger Dornbusch "Monetary Reform" (mimeo, 1990).

existing assets and liabilities into "market rubles" or "convertible rubles"--call them M-rubles. The M-rubles would be converted from existing rubles at a rate of, say, one M-ruble to two old, non-convertible rubles. (The figure of two-to-one is used for illustrative purposes and is unlikely to be exactly the right figure.) Then households would convert all cash, savings accounts, and other financial assets into M-rubles at the exchange rate of two to one. The size of household debts appears to be small enough to ignore, but in principle these would also be reduced by fifty percent. Wages rates would not be adjusted; wage rates in old rubles would continue to apply in M-rubles. Other contractual questions, such as those involving enterprise and commodity contracts, will be ignored in this discussion, although these may pose technical issues.

On the basis of the calculations made to date about the extent of repressed inflation (see section I above), it is plausible that a two-to-one conversion would be sufficient to extinguish much of the monetary overhang. Then, and this assumption is critically important, taken in conjunction with steps to reduce the budget deficit and tighten credit, the monetary reform should prevent a major price explosion at D-Day.

An important part of the deregulation process is that the ruble will become internationally convertible at D-Day, so one major advantage of the monetary reform would be that the new M-

ruble would be immediately able to buy Western goods. This is where the decision about the exchange rate becomes crucial. Estimates of the appropriate exchange rate at D-Day are treacherous, and some research indicates that a rate of 10 rubles to \$1 might be an appropriate rate if prices were to double, suggesting an exchange-rate target at current prices of about 5 rubles to the dollar. Accepting this estimate for purposes of discussion, the new M-ruble would therefore be completely convertible into dollars for current transactions at a rate of 5 M-rubles to the dollar. For those households desiring Western goods and exposed to current black-market prices, which were in the range of 15 to 30 rubles to the dollar during 1990, the new M-ruble would actually look like a bargain rather than a confiscation. After the currency reform, the new M-ruble might be at a floating rate, but that depends on whether a floating or fixed rate should prevail at the outset of the reforms. This question is discussed in the chapter on Opening the Economy.

Proponents of the monetary reform argue that it is the only practical alternative to inflation; even more important, once a price-level increase of a factor of 2 or 3 takes place, the chances of triggering budget expenditures, wage increases, and a runaway inflation are significant and intolerable. They argue that an across-the-board ruble conversion would be more equitable than either inflation or partial conversion or freezing savings accounts. In the ideal monetary reform, all rubles are treated

equally, whereas inflation, partial reforms, or asset freezes will end up mainly hurting the poor, elderly, and innumerate who are not sophisticated enough to understand them and are therefore unable to take steps to avoid minimize the costs of adjustment. Finally, in terms of popular support, experience from Latin America suggests that while people generally oppose monetary reform in advance, once a successful reform is behind them, people are relieved and satisfied that it has been done.

Opponents of monetary reform are skeptical of the ability to produce anything like the ideal neutral ruble conversion analyzed above. There will be pressures to exempt or to attach certain assets; anti-speculative sentiment may tend to make the conversion progressive (as occurred, for example, in East Germany); it is likely to be poorly timed; there are many examples of monetary reforms that were introduced as substitutes for, instead of complements to, the necessary fundamental reforms; they tend to undermine confidence in the domestic currency and accelerate dollarization; and they may provoke hostile public reactions. Most important, they can only solve the stock problem (by reducing the monetary overhang) and contribute nothing to solving the flow problem.

In addition, Soviet analysts argued that it would be impossible to keep the plan secret given the necessity of gaining agreement of the Republics, so the task is to devise an effective

anticipated monetary reform. Opponents point out that an anticipated partial monetary reform (say one converting only large notes or savings accounts, or a temporary freezing of accounts) could be easily defeated by converting assets to exempted assets or goods, or by "leveling" of accounts in the case of a progressive reform.²⁰

On the whole, it is certainly better to avoid monetary reform if the resulting one-shot price increase would be modest (say 20 or 30 percent), while a neutral monetary reform would be preferable if the price rise was extreme (a factor of 5 or more, which threatens to trigger hyperinflation). In between these extremes, the decision will depend upon the estimates of inflation and the extent to which the actual reform plan resembles the ideal neutral plan sketched above.

But whatever the view about the wisdom of well-designed monetary reforms, it is essential that these be part of a strict

²⁰The monetary reform of January 1991 shows the difficulties of a poorly designed reform. This reform attempted to confiscate unlawfully obtained 50 and 100 ruble notes. In doing so, it would in principle reduce the money supply owned by households (M2) by at the most 10 percent. Some newspaper accounts indicate that knowledgeable people had wind of the confiscation and moved into other assets.

It is almost certain to be ineffective as large-ruble holders transfer their holdings to cousins, grandmothers, and people who simply do not have them. The limit on personal conversions is 500 rubles for workers and 200 for pensioners. Assuming that the average citizen can convert 300 rubles in large notes, this allows for 300 times 280 million in legal conversions, which is 84 billion rubles, as opposed to around 40 billion of notes outstanding.

stabilization policy and not be used as a substitute for the necessary measures to reduce the budget deficit and control money and credit.

8. The extent of inflation or the stringency of the monetary reform would be reduced to the extent that the ruble overhang can be reduced. With this in mind, two specific steps might be considered to reduce inflationary potential:

a. The government might attempt to convert some fraction of household liquid assets into equity claims. These claims might be shares of the stocks of privatized corporations, or of the housing stock (although the latter appears to suffer from serious technical issues). In addition, liquid assets could be converted into illiquid financial assets. These might include long-term bonds, or special accounts that can only be used for capital transactions (such as purchase of housing or equity claims on corporations).

In undertaking the conversion to illiquid assets, however, care should be taken not to exacerbate the flow problem by incurring large future government interest payments. For example, if the savings accounts were converted into indexed savings accounts or long-term bonds bearing market interest rates, this would sharply increase the government's future interest payments and would therefore threaten to destabilize the economy.

b. Caution should be exercised in privatizing enterprises so that further government financial obligations are not created. One proposal for privatization would leave enterprises with any positive balances and would reduce any debts to zero. This clearly would increase the government debt and is to be avoided. From the point of view of stabilization, the best policy is probably to cancel all financial debts and credits of state enterprises and leave them with only their physical assets. A particularly dangerous policy would be to cancel debts, leave credits, and then to transfer shares for free to mutual funds or individuals. This would overnight add another 100 to 200 billion rubles to the ruble overhang because the enterprises have balances of that magnitude.

The point to emphasize is that the enterprises belong to the state. Their assets and liabilities can be auctioned off in a way that is most sensible to the public interest. There is little reason to give windfall gains (or impose windfall losses) on those firms who happen to have positive (or negative) financial balances because of the past whims of the administrative economy.

Other issues

9. A major set of issues for the period after D-Day concerns how to compensate or index various sectors for the possibility of

price increases. In general, we would emphasize the importance of minimizing the amount of automatic indexation of budget claims or of wages or of taxes. As we noted in the discussion above, greater indexation leads to a greater threat of dynamic deficit instability.

There is no way to index the entire economy; indexation is best seen as a redistributive measure. The more the system is indexed, the greater is the threat of hyperinflation. Many countries who have indexed their economies have lived to regret it. Moreover, it must be kept in mind that when prices are freed queues will be reduced, black-market prices will fall, and so the true cost of living will rise less than will the official retail price index.

With these general considerations in mind, we would allow for one exception in the case of transfer payments to low-income households, like pensioners, who must be protected against the hardships of a severe inflation. For such groups, a high (but not 100 percent) indexation rate would be acceptable. With respect to other groups, the recommendation would be to minimize the amount of indexation. By avoiding indexation, the overall stability of the economy is improved.

It is worth noting that the country with the greatest inflation stability, the Federal Republic of Germany, is one in

which wage indexation is illegal!

10. A final issue concerns the recommendations on incomes policies. "Incomes policy" is a term used to designate policies that work directly upon the wage and price decisions of individual firms. It could include limits to price or wage increases, penalties or taxes on excessive wages (as in the current "tax on the wages fund"), informal or formal guidelines, and other mechanisms.

Our view is that tight fiscal and credit policies are a necessary and sufficient condition for the ultimate containment of inflation. In ideal circumstances, we would recommend that conventional stabilization policies could usefully be augmented by policies to restrain wages.²¹ On the whole, however, we come down against such measures.

The major argument against incomes policies (such as wage guidelines) are that they are in fact dangerous because policymakers view them as substitutes for the more fundamental requirement of anti-inflation policy--tight aggregate demand and extinguishing the ruble overhang. Putting this point differently, the only sure and certain way to ensure that inflation will be contained is the threat of unemployment and bankruptcy that

²¹The case for incomes policies, with suitable cautions, is laid out in Richard Layard, "Income Policies in the Soviet Union", (mimeo, 1990).

prevents firms from raising prices and wages in an atmosphere of tight budget and credit policies.

There are other dangers in an economy that is trying to move to the market. Historically, most incomes policies end up with the government putting pressure on individual firms (and sometimes unions) to restrain wages and prices. Such pressure will interfere with the principle of free prices and wages. While the damage may be tolerable in a society with long and deep market traditions, it seems more perilous in a society which is trying to nurture financial responsibility, autonomy, and freedom from central interferences with price and wage decisions. Particularly in a mixed system where the government retains some residual powers and can use economic threats to enforce incomes policies, it would seem better to abjure their use.

Given all these limitations, we see at best a limited role for incomes policies. The chapter on the Social Costs on Unemployment suggests that incomes policies should be applied only to large enterprises that are likely to be monopolies in their product markets and have strong unions. In contrast, we would forego entirely incomes policies because of the risk that when a government has residual powers and can use economic threats to enforce incomes policies, such policies can weaken enterprise independence and bring back into the political process decisions about relative incomes of different groups.

11. We must be clear on two points about prices. To begin with, the fundamental choice for stabilization policy is between monetary reform (of either the ideal neutral or a messier partial version) and inflation (of uncertain size and duration). To the extent that there is no monetary reform, the presence of excessive household liquid assets will require a significant price rise to inflate the excessive assets.

At the same time, however the issue of monetary reform is decided, there is no way of avoiding a major economic upheaval because of the necessary change in relative prices. No stabilization policy can prevent the relative free-market prices of highly subsidized items like food from rising, although in the process many important consumer goods, such as televisions, automobiles, and jeans will experience a sharp fall in relative prices.

VI. FINAL THOUGHTS

Many Western observers of the Soviet economy are today pessimistic about the prospects for achieving economic reform. The road is long, political will is meager, and the time is short. The most recent period seems to be a case of "one step forward, two steps backwards." The chasm between the administrative-command economy and the full market economy is

wide and deep.

We are nonetheless hopeful that the chasm will be crossed and that these recommendations will make the crossing less perilous.

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