Adjustment in Planned Economies

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MACROECONOMIC DISEQUILIBRIUM may be reflected in balance of payments difficulties, open inflation, general shortages of goods, or widespread bottlenecks disrupting production. In such circumstances, a program of adjustment is called for. This paper elaborates the necessary elements of this adjustment and their consequences in planned economies, that is, economies directed primarily by a central plan rather than by market mechanisms.

In such economies, enterprises are largely state owned, prices are normally set by administrative decision, and external transactions are under strict control. Despite the dominance of the plan and of direct control by the central authorities, there is scope for autonomous behavior by economic units. Plan instructions do not cover all aspects of economic, or even productive, activity, and the enterprise managers may in any case find reason for not following them. Furthermore, some markets may be permitted. In summary, the paper treats the complex reality of existing planned economies rather than focusing on an abstract model involving a monolithic, omniscient, all-pervading central plan.

While the literature on the institutions of planned economies and the planning process is extensive, much less has been written on the nature and mechanisms of adjustment in such economies. A number of authors, starting with Holzman (1960) and Montias (1964) have dealt with the question of open and repressed inflation. The literature on the fluctuation of investment levels was surveyed by Bajt (1971). Balance of payments adjustment has been studied by Holzman (1968) and Wiles (1969). More recently,

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1For a description of a planned economy, see Ames (1965).
the problems of inflation have been given further attention by Portes (1977) and Howard (1979), and balance of payments adjustment by Wolf (1978) and Portes (1979). The fundamental causes of disequilibrium in planned economies have been dealt with extensively by Kornai (1980). Finally, one of the few works to discuss the way the central plan is actually adjusted in real circumstances is Zaleski (1980).

The need to adjust may arise from the adverse influence of exogenous factors. The terms of trade may shift, the harvest may fail, and export markets may vanish. The need may also be the result of inappropriate domestic policies, such as an excess of the investment level over that of savings, excessive government expenditure, insufficient incentives for exports, or aiming at growth targets greater than the economy is capable of achieving. In essence, the need to adjust arises in similar circumstances in both planned and market economies, although the precise way the need is manifested may differ.

Adjustment consists of improving the balance between domestic supply and demand. In any economy, an external payments deficit reflects an excess of domestic expenditure over domestic income, and the restoration of balance corresponds to increasing domestic income relative to expenditure. There is a duality between the real side of the adjustment, supply and demand, and the financial side, income and expenditure, that exists in all economies. However, there is more scope for adjustment measures to operate through the financial side in a market economy than in a planned economy, where the bulk of the adjustment measures will have to address the real side directly. Restoring balance between real supply and demand involves measures to increase the rate of growth of supply relative to that of demand and, in parallel, the shifting of resources to the external sector.

In a market economy, where productive activity is not under the direct control of the central authorities, the balance of supply and demand can be influenced primarily through indirect means, such as fiscal and monetary policy. In a planned economy, there is scope for both direct and indirect measures, but influence is exerted mainly through direct measures, the so-called adjustment of the plan. Such measures include cutting the investment program and discouraging certain activities and substituting others. Ultimately, however, all measures to improve the balance of supply and demand and the generation of savings have to be taken at the level of the individual economic unit.
This paper first treats the various ways in which the balance of domestic supply and demand can be improved in a planned economy. Following this is a discussion of the financial aspects of this restoration of internal equilibrium. A distinction is then made between forced adjustment, which involves increased distortions, and fundamental adjustment, which allows the pursuit of balanced growth. The analysis of adjustment is then extended to the external sector. Also, some general considerations relating to the structure of prices and to the general price level are considered in the context of adjustment. Finally, there is a discussion of the indicators of disequilibrium and of the interpretation of financial programming.

I. Adjustment on the Supply Side

If there are unused resources in the economy, real supply can be increased by putting these resources to productive use. If, however, resources are fully utilized, supply can be increased only by reallocating the resources from less productive to more productive uses. More productive uses of resources will, in general, be indicated by a higher rate of return and by the generation of improved financial results. This matter is discussed in more detail below in the section on prices and adjustment.

Measures to increase supply may be direct or indirect. Direct measures include the adjustment of the plan to shift resources to more productive uses, together with efforts to locate unemployed resources and direct them to productive use. Measures may also be taken to increase the productivity of resources, including mobilizing the work force to greater effort. Production can often be increased considerably by more efficient or intensive use of the capital stock. As discussed below, in many planned economies there are strong forces acting to increase the demand for investment. Once fixed capital has been allotted to the enterprise, however, enterprise management may regard it as a free good and so have little stimulus for utilizing it efficiently. In many countries, the strongest stimulus is the expectation of the planners that the equipment will generate some specified level of output, an expectation that could be reinforced through a managerial bonus scheme. Other countries have experimented with taxes on fixed assets, in the hope that the tax will encourage more efficient use within the enterprise or, alternatively, that the manager will sell
the asset to another enterprise where it can be used more profitably. This experiment has frequently run into problems, among which are the strong implicit incentives for the manager to hang on to any assets that might be used as a production reserve, and the absence of a capital market or an accurate valuation system for installed equipment.

Indirect measures to increase supply consist of improvements in incentives for increasing production. In agriculture and in the nonstate sector, such improvements include lifting administrative restrictions on certain productive activities, improving price incentives for production, and providing more inputs to these sectors through the reallocation of resources. For the state sector, price incentives, together with appropriate exchange rate and interest rate policies, can help to stimulate increased supply and the more efficient use of resources, to the extent that enterprise managers are interested in improving financial results. Other indirect levers include giving increased supply a higher place in the enterprise manager’s list of priorities.

II. Adjustment on the Demand Side

Adjustment also involves the restraint of demand. For the purpose of this discussion, different elements of demand can be identified—namely, final consumption and investment. This section will also deal with the restraint of intermediate demand, a category of particular importance in planned economies.

FINAL CONSUMPTION

In both market and planned economies, private consumption demand depends on the consumers’ real income, their wealth, and the incentives for saving. The balance of income and expenditure of the population, an important tool for assessing equilibrium in consumer goods markets, is shown in Table 1. The various items can be influenced by the authorities through measures to control wage rates, prices, and interest rates, among other variables. The prices at which consumer goods are sold may be controlled by the government directly or indirectly through taxes on retail sales.

In centrally planned economies, where there are strong restrictions on the holding of cash or savings accounts by enterprises and little consumer credit, the availability of financial resources to consumers, which is a major factor influencing their demand, can
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1Excluding monetary transactions between social groups of the population.

be clearly measured by the amount of cash in circulation, together with a part of savings deposits. As in a market economy, the liquidity of the consumer (household) sector could be reduced by offering sufficiently attractive but less liquid financial assets, such as

2In many of the economies in question, there are few financial assets available to households other than cash and savings deposits. In some, earmarked time deposits have been introduced for the purchase of consumer durables in short supply. There may be considerable scope for financial deepening connected with housing, which might attract long-term domestic savings and provide another channel through which the authorities could influence consumer demand.
as term savings deposits with higher interest rates. It can also be reduced by increasing supplies to the market or by raising the prices at which available supplies are sold. Another method is simply to confiscate part of cash holdings by a monetary reform, although this can have negative consequences (see Ames, 1954).

One method of preventing the accumulation of financial resources is to limit directly the payment of wages and bonuses by enterprises. But this can limit the supply of goods as well, if workers reduce their efforts in line with the reduction in wages. Direct control over the wage fund has historically been of considerable importance in centrally planned economies (see Adam, 1979). Other means of controlling the flow of cash from enterprises into the economy may be indirect, either an income tax or a tax on enterprises' wage and bonus payments. A further channel through which personal incomes are formed is the procurement by state enterprises of agricultural produce. Whether this automatically results in an increase in agricultural producers' disposable income and in cash in circulation depends on the institutional arrangements in the agricultural sector. The state budget is another source of income, since it pays wages and various forms of social security payments. The budget can also be used as a means of lowering disposable incomes. The impact of these factors on consumer demand is little different in market or planned economies.

The financial aspects of a reduction in household demand in a planned economy follow a pattern similar to that in a market economy. A decline in real wages at an unchanged level of production means that larger profits will be made by producing enterprises or larger taxes paid into the government budget; in both cases, higher savings will be generated outside the household.

These arrangements include the income distribution system on state and collective farms, the incidence of private farming, the availability of pensions and health insurance for farmers, and the incentives for investment in agriculture.

The state budget has, of course, many functions other than the supply and withdrawal of cash from the population. In considering some of the differences between the fiscal systems of market and planned economies, the following issues could be considered: (1) the type of taxes relied on by planned economies; (2) the ease with which tax rates can be changed; (3) the coverage of the budget; (4) the relation between the budgetary process and the planning process; and (5) the possibility that changes in the prices of state enterprises and changes in product taxes may not be equivalent. A detailed treatment of these potentially important issues is beyond the scope of this paper, in which the state budget is treated primarily as an integral part of the plan. For a discussion of some of these issues, see Holzman (1955).
sector. Increased household savings may be generated, as mentioned above, by improving the attractiveness of financial instruments available to households. The subject of forced savings—savings made because of the unavailability of desired goods—is considered later in the paper. The reduction of demand by the government by reducing government services should also be reflected in improved governmental savings. This is no different from the situation in a market economy.

INVESTMENT

The second form of final demand is investment demand, which has a private component, a state (or planned) component, and an autonomous component. These components are dealt with in turn below.

Private investment

Private investment demand is a function of the permitted or tolerated range of private investment activities, the financial resources available to the private investor, and the expected return on the investment. Thus, if private investment in housing is permitted and there is a housing shortage (the implicit return on housing thus being high) and consumers have financial resources, then, if building materials are available, there might be a housing boom. For the control of nonproductive investment of this sort, many of the considerations governing the consumer goods market apply.

In addition to investment for nonproductive purposes, there may be productive private investment in those sectors where it is permitted. This is often the case in agriculture. Some of the factors determining the level of such investment are the same as those listed above. As in a market economy, the interest rate offered on loans to the private sector will normally have an impact on the level of demand for financial resources for investment. There

5The term “autonomous demand” is not used here in its standard sense of investment that is determined by exogenous rather than economic factors. Instead, it refers to the demand of state enterprises and government units that stems from internal factors proper to the unit rather than the demand expressed in the plan.

6Housing is in practice often the only potential long-term investment available to consumers. The policy of extremely low public rents practiced in a number of planned economies may lead to considerable distortions of the housing market and also affect the incentives for investing in housing.
may, however, be many other factors, including marketing practices, relative prices, taxation, and limits to the permitted extent of private ownership.

**Planned investment**

Planned investment will normally constitute the major part of the investment activity of the government or nonfinancial public enterprise. The aggregate amount of planned investment is normally determined by the planning authorities. Investment projects do not necessarily originate with the planners, however, but may reflect autonomous investment demand of government units and public enterprises. The planners have to decide between competing claims for investment resources and, in addition, initiate projects that are considered essential to the economy.

In authorizing and including an investment project in the plan, the planners are not directly constrained. However, unless the planning is realistic it will be impossible to implement the investment plan. The planning authorities thus need to limit their demand for (or authorizations of) investment projects to the physical capacity of the economy to supply resources for investment, given the competing claims of consumption. In any case, the level of planned investment or of authorizations to undertake investment projects is an important policy tool of the authorities.

A reduction in the volume of investment expenditures or in the gestation period of projects will bring about the more rapid generation of financial surpluses. In reducing the level of investment, providing that prices broadly reflect relative scarcities, it is most rational economically to eliminate those projects with the lowest rate of return, since that will at the same time involve the fastest generation of savings. In these calculations, some discount rate needs to be used in order to make the necessary intertemporal choices. The correct rate should reflect the immediate need to trade off current against future savings, a need that will be influenced by the urgency of the adjustment.

During a period of stabilization, the rate of return on individual investment projects would normally become the major criterion governing the planner’s investment decisions. This could require downplaying two other factors that normally influence investment decisions. First, investments are frequently made to fill gaps in the economy’s production structure. Such investment responds to perceived shortages (and therefore high implicit prices). If such investments do not show a profit, even when the price system is
correct, the items in question should almost certainly be acquired by foreign trade, assuming that is possible. A second motive for planned investment is to achieve some desired economic structure in the longer run. However, when economic stabilization becomes a priority, investment that will be profitable only in the long run must inevitably be reduced.

**Autonomous investment**

The autonomous demand of public enterprises and government units for investment was mentioned above as one of the factors influencing the level of planned investment. The extent to which such demand is allowed to express itself in unplanned investment depends on the institutional arrangements of the country. The level of this autonomous demand will depend on the availability of finance and the expected return on the project, interpreted in the broadest sense. It does not encompass solely the expected financial return but also incorporates the general utility of the investment to the investors, including its role in alleviating shortages, improving working conditions, and modernizing the plant, among other factors.

Purely financial considerations may have less weight in public sector investment than in the private sector, since the financial consequences of a failure to estimate the return correctly need not have particularly adverse consequences for the investor if financing is readily available (see Kornai, 1980). The availability of finance to an enterprise depends not only on the amount of certain of the unit's own funds for an investment project but also on the willingness of a bank or the state to provide finance at the start of a project or to continue to finance a project once started. While the expression of autonomous demand can be restrained administratively, any reduction in such demand depends also on the strictness of the financing provisions. Even if little money is made available for such investment, autonomous demand may lead the management of units to make inflated requests for planned investment and understate the costs, while overestimating the benefits, of such projects.

While autonomous investment demand influences the level of planned investment, it can also be reflected in decentralized investment. This can occur if administrative restrictions are relaxed on investment activity launched by enterprise managers, while at the same time they are allowed access to the physical and financial resources necessary for investment.
Control over the autonomous demand of enterprises may be exercised directly, essentially through suppressing the demand by refusing to take it into account in formulating central investment decisions and by prohibiting its expression in decentralized investment. Alternatively, control can be indirect by restricting the amount of financial resources made available for investment in the form of budgetary grants or bank credits. The rate of return on investment projects can be lowered by making such projects less attractive. For example, if a certain project is designed to economize on some input in short supply, the demand for the project can be reduced if more abundant supply becomes available. In this context, increased imports of items in short supply can play a major role. Also, some financial levers can be used to make an investment project less attractive. If there is strict financial discipline and an investment loan must be repaid and if the interest and repayment of such a loan can be expected to have an impact on the enterprise’s profitability, then by tightening the conditions for loans the demand for investment can be reduced.

If autonomous demand for investment resources is to be reduced, financial discipline needs to be stressed at the enterprise level, and managers need to be held more responsible for the financial results of their activity. One method of accomplishing this is the informal one—letting a manager know that his superiors will judge his performance as much by his success in increasing the internal generation of savings in his enterprise as by other criteria. Reinforcement can be achieved through a system of incentives that ties the manager’s remuneration to his enterprise’s financial rather than physical result. At the same time, those supplying finance for investment projects (the banks, the government, and the enterprises’ hierarchical superiors) can take a more critical attitude toward the projects they finance, demanding more exacting cost-benefit analysis and holding the manager more responsible for cost overruns and other forms of financial indiscipline. In such circumstances, the tightening of conditions governing the

There is considerable literature on the question of the construction of success indicators in centrally planned economies. Traditionally, the important indicators have been physical volume or gross value of output. Other indicators, such as net output (value added) or cost reduction per unit output, are also used. Profitability becomes an increasingly important success indicator when there is a need for macroeconomic adjustment. However, the more weight that is placed on indicators other than physical product, the greater the incentive for enterprise management to allow output to diverge from that planned.

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provision of finance, such as raising interest rates and insisting on the repayment of loans, can be more effective in reducing investment demand.

INTERMEDIATE DEMAND

Another source of demand that merits attention in planned economies is intermediate demand. In a market economy, the production of an enterprise is determined largely by the enterprise management’s estimate of the demand for the product; this is not necessarily true for an enterprise in a planned economy. Thus, controlling the level of demand for an enterprise’s output may not affect the level of the enterprise’s activity. Unless the enterprise receives instructions or incentives to lower its level of activity, it will continue to demand the same volume of inputs, producing largely for stock. This phenomenon occurs in centrally planned economies particularly at times of “taut” planning (see Hunter, 1961). In such periods, enterprises are encouraged to maximize their output in an effort to raise the growth rate of the economy. The existence of demand for the final output becomes largely irrelevant, and there is a tendency to push production beyond the level of zero marginal return.

When enterprises operate at high activity levels, they demand excessive inputs of materials and labor, creating shortages and inflationary pressures. When enterprises produce as much as possible and without regard to the market, they are thus themselves a source of demand pressure, which is reflected in a deterioration of their financial situation. This excessive level of activity affects stocks as well. In some economies, depending on the circumstances, production accumulates in the form of unsold or unsalable output stocks. In others, and at other times, where production is frequently constrained by shortages, there is a tendency for enterprises to accumulate stocks of inputs to ensure that external shortages do not disrupt production (see Kornai, 1979). The higher the activity level of the enterprise, the greater the tendency to accumulate stocks. The stocks in turn require financing, which may be directly from the banks, from other enterprises, from the enterprise’s own resources, or from money diverted from other uses.

A high level of intermediate demand also affects the production process itself. At a high activity level, equipment is used at near capacity levels. There is more overtime, the possible substitution of inferior or higher-cost inputs, and more wear on equipment—in
other words, increased marginal costs, if not a decline in product quality. An enterprise in a market economy limits production to the level at which marginal cost equals marginal revenue, since beyond that point the marginal financial return on production is negative. In a planned economy, an enterprise may not be similarly constrained. However, production beyond this level uses resources at a rate greater than production, and thus contributes more to demand than to supply.

When adjustment is needed, such excessive activity has to be discouraged. Normally, stricter financial discipline would be imposed on enterprises so that production would be restricted to activities with a positive return. If the enterprise manager wants to maximize the financial return of his enterprise's activity—in other words, to maximize his enterprise's internal savings—he will be less inclined to push his enterprise's activity level beyond the point of zero marginal financial return.

III. Financial Discipline and Adjustment

Financial discipline means both that enterprises pay particular attention to the financial results of their activity and that strict conditions govern the provision and use of finance. This has traditionally been achieved in centrally planned economies by keeping a strict control over the surplus funds of enterprises. The owned resources of enterprises are limited largely to fixed assets and a certain amount of working capital; current activity is financed primarily by bank loans tied to specific uses. Enterprises' access to cash (and thus to the means of making wage payments) is particularly strictly limited, but the banking authorities also exercise care to prevent the excessive accumulation of enterprise deposits (see Garvy, 1966).

In principle, the bulk of net earnings are distributed as profits, primarily to the owner (i.e., the state), or placed in various earmarked funds. In practice, however, the fungibility of money tends to assert itself when financial discipline is weakened. Money, which, given time, would become earmarked for some particular purpose, is used by enterprise managers for other purposes—investment or the purchase of inputs for production—in fulfillment of their objectives. The money rarely finds its way directly into wages, because the size of the wage fund is strictly controlled, but a major part may do so indirectly. The money received by the supplying enterprises goes partly into profits, and
thus is withdrawn from circulation, but it also goes into wages and to finance further demand. Ultimately, the excess liquidity in the system will go partly into profits and partly into wages, thus fueling consumer demand (Wiles, 1969). This is a consequence of weak discipline on the use of funds by enterprises and also undermines the bank’s efforts to apply strict criteria to the financing of activities.

A major element in adjustment is normally a tightening of financial discipline—the encouragement of enterprise managers to be aware of the financial consequences of their activities and the prevention of excessive liquidity being used to finance unplanned demand. In some sectors of the economy, in particular agriculture and households, there may be broad scope for some of the traditional instruments of fiscal and monetary policy. In the state enterprises sector, however, the independent scope of such policies depends on the degree of financial discipline.

In any case, the improved savings performance of an economy should be reflected in its monetary accounts. Larger savings by households should be reflected in larger savings deposits; improved financial performance by enterprises should be reflected in larger deposits and profits; and improved government savings should be reflected in larger budgetary surpluses.

IV. Fundamental and Forced Adjustment

*Ex post,* supply and demand are always made to be equal. However, an important distinction can be made between the situation where demand is reduced to bring it into line with supply and where demand is simply suppressed. In the former case, factors operate on the *ex ante* balance of supply and demand to bring them into equilibrium; in the latter case, excess, unsatisfied demand continues to exist. Economic statistics record the *ex post* situation and so are normally unable to offer an immediate guide to which situation prevails. Only when adjustment is achieved by altering the factors that determine supply and demand is the adjustment in any sense fundamental. If an imbalance is merely suppressed, it will simply reassert itself when the suppressive forces are removed or will in the interim distort the economy in other ways.

If the desired reallocation of resources and structure of production and use were known *ex ante,* a planned economy could
achieve adjustment directly by administrative means. In practice, the authorities do not have this information any more than they would in a market economy. Consequently, in adjusting the plan, attention must normally be paid not only to the symptoms but also to the underlying causes of the imbalance. In adjusting the production structure, the planners would be guided by such indicators as the relative efficiency of different uses of resources. In practice, they must not only directly reallocate resources but must also influence the behavior of economic agents to induce them to act to bring about adjustment rather than to circumvent it.

In the consumer sector, and to some extent in agriculture, the factors determining ex ante demand are much the same in a market and a planned economy. The main differences lie on the supply side, where in the planned economy excess demand has little effect on supply, and ex post demand is brought into line with supply, leaving some demand unsatisfied. Unlike a market economy, excess unratified consumer demand in the planned economy has no direct effect on prices nor does it induce higher production. Instead, the shortages are reflected in queues, illegal markets, the drawdown of inventories, and increased involuntary cash holdings—phenomena that may also appear as secondary effects in market economies. Eventually, the discrepancy between the ex ante real wage (income divided by the price level) and the ex post real wage (consumption divided by the price level) can have a negative effect on the supply of labor, and ultimately on production. Restricting ex post demand by reducing the supply of goods can also have other adverse social consequences. If these negative effects are not to be felt, measures must be taken to reduce ex ante demand, either by controlling wage payments or by offering more attractive savings instruments to bring about voluntary savings.

Within the state sector of the economy, similar considerations apply. Direct administrative measures must normally be combined with incentives for autonomous actions to improve the balance of supply and demand. In their absence, measures taken by enterprise managers may tend to undermine the stabilization objectives of the authorities. Since the authorities do not possess full information about all possible alternatives available at the enterprise level, they deprive themselves of the main source of initiative in the multitude of minor adjustments if they do not use the incentive system appropriately. As discussed above, however, the incentives operating through the financial system are effective only if there is a reasonable degree of financial discipline.
V. Adjustment and the External Sector

The above analysis has been couched largely in terms of a closed economy, but it can easily be extended to cover the external sector. While overcoming external disequilibrium involves a decrease in domestic demand relative to supply or an increase in domestic income relative to expenditure, more particularly there must be a shift in resources to the external sector. Exports must be increased relative to imports. Some resources must be diverted from domestic uses to export and domestic goods substituted for some imports. This transfer must be made in the most efficient way in order to minimize the effects on growth.

As with domestic adjustment, external adjustment can be either fundamental or forced. A market economy can restore balance to its external accounts by restricting imports and subsidizing exports. Such a change imposed on the economy will force certain domestic economic adjustments. In the new situation, while external accounts may be in balance, neither domestic nor foreign resources will normally be used most efficiently. Fundamental adjustment requires that external accounts be brought into balance by adjusting the domestic balance of supply and demand. This will allow changes in the levels of exports and imports consistent with the efficient use of domestic and world resources.

The distinction between forced and fundamental adjustment also applies to planned economies, although it may be less easy to observe. In response to balance of payments disequilibrium, the authorities must ensure that changes occur in imports and exports and that corresponding adjustments occur in the domestic economy. As in a market economy, this problem can be tackled directly from the external side: a new level and structure of exports and imports is decreed, and corresponding adjustments to the domestic economy are made. However, there are many possible levels and configurations of imports and exports, only a few of which can be considered as constituting an efficient pattern of trade. When the problem is tackled from the trade side, it is not certain that the authorities in a planned economy are any more able to identify the optimal pattern of trade than those in a market economy.

Fundamental adjustment approaches the trade imbalance from the point of view of the balance of domestic supply and demand. The domestic balance should be restored in a way consistent with the most efficient use of resources, and the corresponding adjustment should restore equilibrium to the external accounts. In prac-
tice, the adjustment process takes place through an adjustment of the plan, and changed plans for domestic and foreign economic activity will be introduced simultaneously. However, if the adjusted plan is to be efficient, the adjustment should be fundamental rather than forced.

In an economy where all trade is subject to plan mandate, it may be difficult to tell whether a revised trade plan has in fact intensified import restrictions. Among the factors that must be examined in considering whether adjustment is forced or fundamental are the level of demand and the structure of incentives. The reduction of demand may embrace consumer demand and investment demand and also any pressure on enterprises to maximize production indiscriminately. At the same time, measures would be taken to improve supply and to reorient resources to those uses that have become relatively more profitable in the changed circumstances.

The structure of incentives would also be changed to encourage the desired adjustment. This will, first, require improved incentives to produce for export and to replace imports with domestic goods. One way of doing this is to attach more importance to the fulfillment of foreign sector targets when evaluating a manager’s or an enterprise’s performance. Many centrally planned economies have experimented with bonus systems, tying such payments to the fulfillment or overfulfillment of foreign trade or foreign exchange targets. These systems run the risk, however, of further distorting the economy. The successful fulfillment of an export target depends not only on the activity of those employed at the exporting enterprise but also on those supplying that enterprise. Suppliers may resent a system where only the actual exporter is rewarded for export performance and attempt, themselves, to export rather than to supply exporters. Similarly, those who reduce their claims on imported goods may feel entitled to a similar reward to those who export more. As a result, the exporter may have to import if he is to achieve the same results. Thus, the economy begins to move into a distorted pattern of trade.

These consequences follow from a system that rewards earnings of foreign exchange disproportionately, a danger that can be avoided if the relative rewards for domestic and external activities are determined through an appropriate exchange rate. Even in those economies where the exchange rate actually affects the earnings of enterprises other than foreign trade corporations, enterprises will be affected only if they are concerned with their financial balance.
VI. Prices and the Adjustment Process

Prices can be an important tool for promoting adjustment. By selecting the level and the structure of prices appropriately, the authorities can greatly facilitate the passage of an economy toward equilibrium. It is beyond the scope of this paper to discuss in any detail the various issues involved in price setting in a planned economy. However, in this section some general considerations relating to the structure of prices and to the general price level are considered in the context of adjustment.

The structure of prices is important for the information that it transmits. Prices are therefore set correctly when they reflect opportunity costs, and therefore the relative scarcities prevailing in the economy. For most countries, there is wide scope to obtain and dispose of goods in the world market, so that the ultimate opportunity costs the country faces are those prevailing in world markets. Thus, an appropriate price structure should allow some means of reflecting world prices.

It has been argued above that, during a process of adjustment, the authorities should stress financial discipline in enterprises' activity, which is tantamount to emphasizing profit maximization rather than other goals of enterprise activity. To the extent that prices are set incorrectly, however, the pursuit of profit maximization may not lead to the appropriate microeconomic adjustment by enterprises. On the other hand, even profit maximization in the presence of a fairly distorted price structure, as prevails in some existing planned economies, may indicate the general direction of adjustment. Partly to cope with this problem, in a number of planned economies the enterprise managers' objective function has been specified in terms of the change in profits rather than the actual level of profits. While financial discipline in the presence of a distorted price structure may still allow a measure of adjustment to be achieved, the more correct the structure of prices, the more efficient and effective the adjustment.

While the structure of prices is an important factor in ensuring that correct microeconomic adjustment decisions are taken, the level of prices is itself a major macroeconomic policy instrument at the authorities' disposal. The relative levels of consumer goods prices and wages will affect the level of consumption, which may have to be altered as the economy undergoes adjustment. The wage level is a major determinant of production costs. Setting the relative price of labor correctly has important implications for efficient resource allocation.
The level of inter-enterprise prices may well be different in practice from that of consumer goods prices. The normal mechanism to bridge the difference in price levels in the enterprise and consumer goods sectors is the turnover tax, a major source of revenue for the budget. The level of inter-enterprise prices, although it may be insulated from consumer goods prices, is nonetheless an important variable. It will determine the costs of investment and stockpiling, and, if the monetary policy of the authorities is restrained and financial discipline promoted, higher inter-enterprise prices can discourage enterprises from contributing to excessive demand pressures. Although the level of inter-enterprise and consumer prices may differ, there should be some links between the structure of industrial prices and of those paid by consumers. This will automatically occur, however, if prices generally reflect scarcities.

Finally, there is the question of the relation between the level of domestic prices and that of world market prices. This link is established through the price of foreign exchange, and this price, as any other price, should depend on the relative scarcity of the item in question. Some of the advantages of an appropriate exchange rate were stressed at the end of the previous section. When a planned economy faces balance of payments difficulties, the relative scarcity of foreign exchange will be greater. Thus, the appropriate level of the exchange rate for the domestic currency will need to be lower. In the absence of such a movement of the exchange rate, the application of greater financial stringency to enterprise activities will not necessarily lead to the desired shift of resources into the external sector.

 VII. Indicators of Disequilibrium

In a market economy, economic imbalance is indicated by one or more of three main phenomena: an unsustainable deficit in the balance of payments, inflation, and, in some circumstances, the retardation of growth. In a planned economy, an unsustainable balance of payments deficit also indicates disequilibrium, but under normal circumstances it is possible for the authorities to suppress such a deficit through their control of external transactions. While some prices may be allowed to rise, in a planned economy inflationary pressures will not necessarily entail rapid price increases. Even economic growth may continue well beyond the emergence of disequilibrium, since growth is not necessarily
constrained by final demand. In such circumstances, how can the authorities in a planned economy tell whether there is disequilibrium?

Emerging imbalances between supply and demand can be shown by a number of indicators. Detailed data on production stocks can indicate some of the pressures on the economy. Efforts should be made to identify changes in stocks of inputs, goods being processed, and unsold output. Retail stocks are also a factor in assessing the equilibrium in the consumer goods market, perhaps distinguishing between goods left unsold for a long period and regular stocks. Another indicator of the level of equilibrium in the consumer goods market is the relation between the wage bill and the volume of retail sales. Analysis of the factors lying behind any increases in savings deposits or cash holdings allows an assessment of the extent of forced savings, if any. Comparisons of price levels in official retail trade and in any uncontrolled markets may also indicate disequilibrium. However, black market prices can be misleading if the supply to such markets is highly restricted.

Concerning the level of investment, a rapid rise in the volume of unfinished construction frequently indicates bottlenecks in the supply of construction materials. This situation is revealed by the relationship between the expenditure on investment and the value of new fixed assets coming on stream. Financial data indicating emerging disequilibrium are declines in enterprises' gross profits and increases in their losses—that is, less financial accumulation. Correspondingly, data may show an expansion of credit to enterprises, to the government, or to the public sector as a whole.

A balance of payments deficit is suppressed by the mobilization of resources for export or the restriction of imports beyond the level the economy would normally support. This practice will tend to intensify shortages throughout the economy and force the substitution of higher-cost or lower-quality inputs, resulting in a deterioration in efficiency and the quality of output. It will also cause output to depart from plan in those sectors that need the output of exporting sectors as inputs. While the emergence of such shortages and forced substitutions may not be reflected in increased prices, these manifestations of repressed inflation will tend to worsen the financial results of enterprises.

When goods are mobilized for export increasingly on the grounds of their availability rather than their opportunity costs and when restrictions on imports are intensified, there will be a change in the relative structures of the domestic and foreign costs.
of traded goods. The shift will imply the need for increasing subsidies for exports and increasing implicit taxes on imports. Following the decline in quality of export production, as mentioned above, there will be a further divergence between domestic production costs and the price obtainable for export products on foreign markets. Whatever equalization mechanism has been adopted for shielding the domestic economy from the effects of foreign prices, the amount of gross taxation and subsidization through such a mechanism will increase as disequilibrium intensifies.

Ultimately, disequilibrium in a planned economy, as in a market economy, has an effect on growth. The emerging and intensifying shortages will tend to disrupt production. The construction period for investment projects will lengthen. The forced substitution will cut productivity, and each increment to production will require increased inputs. The imbalance that emerges between the amount of money available to consumers (in the form of accumulated cash and savings deposits) and consumer goods available tends to lessen work incentives. As a result of all these factors, the growth rate of a planned economy in disequilibrium will start to decline.

The absence of an unsustainable balance of payments deficit or of inflation is not a clear guide in a planned economy to the absence of disequilibrium. However, the presence of such a deficit or inflation is a very clear sign of the need for adjustment. In general, however, it is necessary to look more deeply into the behavior of production and consumption, to rely to some extent on anecdotal rather than statistical indicators, and to look at a greater variety of indicators than would be necessary in a market economy to ascertain whether disequilibrium prevails.

VIII. Relevance of Financial Programming

The above discussion has shown that in a planned economy, as in a market economy, movements in the real economy are reflected in monetary movements. In particular, the improved domestic savings performance of the economy is reflected in surpluses or reduced deficits in the accounts of consumers, enterprises, and the government. Thus, the adjustment process in a planned economy can be monitored through the use of financial indicators in broadly the same way as in market economies.

The monetary approach to the balance of payments in a market
economy has two elements, the accounting identities and the behavioral relationships. From the accounting point of view, the improvement in the balance of payments is equivalent to the change in money supply minus the change in net domestic credit. The monetary approach, however, is based on the further assumption that there is a stable demand for money. Thus, by controlling credit, autonomous adjustments in prices and in the balance of payments occur so that the demand for money will be satisfied.

In a planned economy, the behavioral relationships are much less clear and have not been studied in comparable depth, partly because of shortage of data. With the prevalence of administrative controls, there is an asymmetry in the effects of restricted and excessive liquidity. If liquidity is sufficiently restricted, it will have an effect on real behavior. Consumers will reduce their purchases, and enterprises may be unable to conduct certain transactions they might wish to. In such circumstances, inadequate liquidity could prevent the execution of certain planned transactions. Financial stringency may have effects similar to those in a market economy: enterprises will have an incentive to borrow money abroad (to the extent this is permitted) and to obtain liquidity by exporting.\(^8\)

On the other hand, excessive liquidity may be prevented from having an immediate adverse impact on either prices or the balance of payments. Both consumers and enterprises may be obliged to continue to hold excess holdings of cash. Thus, it is possible to have balance of payments improvement in the presence of such excessive liquidity. However, this situation will tend in the longer run to undermine the adjustment effort. Excessive liquidity will reduce the enterprises’ sense of financial discipline, undermining their commitment to the fulfillment of plan tasks. Unless strict administrative controls are maintained over enterprise activity, the excessive liquidity will tend to translate itself into more expansionary behavior, such as stockpiling, small-scale investment, or additional wage payments. If consumers cannot spend their cash holdings, there will be an intensification of shortages, which may lead to the growth of parallel markets, the need for price adjustments, or to pressure for higher imports. A further consequence of both increased shortages and the inability to

\(^8\)They may also run up inter-enterprise debt, despite the fact that this is normally prohibited.
spend money is a reduced incentive to work for pay in the domestic currency. Therefore, while external payments may be brought back into balance in the presence of excessive liquidity, the economy will not be in equilibrium until the excess holdings have been eliminated.\(^9\)

In other words, in a planned economy, at a given level of economic activity, there is a certain minimum demand for money. Actual money holdings in the short run may be higher than this level without any effect on prices, economic activity, or the balance of payments. Only in the longer run will these be influenced by the excessive holdings of money. If the supply of money is brought below the minimum demand level, there will be a direct effect on economic activity and the balance of payments. Thus, credit ceilings can serve to ensure that monetary expansion does not tend over the longer run to undermine the other measures taken to restore balance to the external accounts. In some cases, the credit ceiling may have to be set sufficiently high to correspond to the adjustments planned in the level of economic activity and the balance of payments.

Although monetary policy in a planned economy does have some effect on behavior, the main method of adjustment is not through autonomous actions following the restricted availability of credit but by directly changing the plan. Nevertheless, the changes in the activity following adjustments in the plan are reflected in the monetary accounts. In monitoring these changes, full information on financial surpluses and deficits is desirable. In practice, a fairly wide definition of money might be used, encompassing cash, savings deposits, and enterprise deposits, since such a definition captures all the money holdings that are likely to have a direct effect on activity.

The monitoring of the improvement of the balance of payments by means of net domestic credit targets may give rise to the objection that attention is being concentrated on a secondary rather than on a primary tool of economic policy. The changes in credit expansion follow directly from the adjustment of the plan. This

\(^9\)It should also be noted that there may be an asymmetry in the effect of monetary discipline between the household and enterprise sectors. Even when the overall monetary stance is loose, it may be tight in the household sector. The government may continue to be liberal in its supply of credit to loss-making enterprises, while households have little access to credit. Thus a tight monetary policy may bear more heavily on the household sector than on the enterprise sector (Kornai, 1979).
placing of a ceiling on a secondary rather than on a primary variable is paralleled, however, by the setting of ceilings on net credit to the government in adjustment programs for market economies. Such a goal can be achieved only if the authorities have a program of microeconomic adjustments involving government finances, that is, specific increases in taxes and reductions in expenditure. The feasibility of any target for net credit to the government must be assessed in terms of these detailed fiscal measures. Similarly, in a planned economy, the target for net credit expansion to enterprises must be assessed in the light of the microeconomic adjustments enterprises are being called upon to make and of their likely effect on enterprises' finances.

IX. Conclusion

In planned economies, adjustment measures are designed primarily to affect the real economy directly. As part of an adjustment effort, measures are adopted to alter such macroeconomic variables as the real wage and the level of investment. At the same time, other adjustments are made in the plan to economize on scarce inputs and to shift resources to the external sector. These direct measures constitute the core of a planned economy's adjustment program, and must be understood if the feasibility of a given adjustment program is to be assessed.

The importance of the adjustment measures operating directly on the real economy should not, however, lead to the neglect of the financial side. As in a market economy, the restoration of balance between supply and demand has its counterpart in a balance of income and expenditure. The physical adjustment process is mirrored in an increase in domestic savings by the household sector, the government, and enterprises. The progress of the adjustment effort can thus be monitored through the aggregate financial statistics of the economy.

At the same time, even in a planned economy, the adjustment process can be facilitated by certain financial policy measures. If strict credit and monetary policies are not pursued, the resulting excessive liquidity can undermine enterprises' commitments to the plan and cause severe imbalance in the consumer and investment markets. At the same time, state enterprises must be subjected to strict financial discipline, involving the limitation of expenditure to the enterprises' income and the generation of savings (financial surpluses or profits). Throughout this process, the
use of correct prices will facilitate the smoothest and most efficient transition to equilibrium.

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