NEXT STEPS IN THE HUNGARIAN ECONOMIC REFORM

by

Bela Balassa

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Bela Balassa *

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ABSTRACT

Following a review of the macroeconomic situation, this paper makes recommendations for the efficient promotion of exports in Hungary. It further reviews the conditions existing in factor markets and suggests modifying the relative prices of labor and capital and improving the operation of markets for these factors.

In regard to labor markets, emphasis has been given to measures aimed at ensuring labor mobility and avoiding excessive wage increases. In turn, a variety of measures may be used to increase the availability and to ensure the efficient use of capital in Hungary. Investment activity may be stepped up by limiting wage increases, broadening the availability of financial instruments to households, and extending recent measures aimed at attracting foreign direct investments. At the same time, there is need to reorient investment activity from heavy industry towards the industries of transformation, with greater scope given to firm decision-making in the process.
NEXT STEPS IN THE HUNGARIAN ECONOMIC REFORM

Bela Balassa

Introduction

Following a review of the macroeconomic situation, this paper will analyze the policies that may be employed to ameliorate the performance of the Hungarian economy. After indicating the need for a restrictive macroeconomic policy and for the efficient promotion of exports, the paper will concentrate on the conditions existing in factor markets. Recommendations will be made for modifying the relative prices of labor and capital and improving the operation of markets for these productive factors in Hungary.

1. The Macroeconomic Situation

In response to the external shocks -- slowdown in external demand and deterioration in the terms of trade -- of the 1974-78 period, Hungary borrowed extensively abroad, with a view to ensure continued rapid increases in domestic consumption and investment. Owing to the deterioration of export performance and the virtual lack of import substitution (Balassa, 1983), foreign borrowing led to the accumulation of a substantial convertible currency debt. Thus, apart from Poland, Hungary's per capita debt surpassed that of any other socialist and developing country in 1978. 1/

In order to improve the situation, the authorities set out to eliminate Hungary's $1.2 billion annual deficit in convertible currency trade. This objective, attained in 1981, was transformed to a goal of a $500-

1/ The relevant figure for Hungary was $545 per head, compared with $571 in Poland, $506 in Yugoslavia, $501 in Mexico, $379 in Brazil, $337 in Argentina, $272 in Turkey and $232 in Romania. -- The data derive from international sources and refer to gross public and private debt.
600 million trade surplus in convertible currencies, to permit financing interest payments on the debt, in the aftermath of the Polish debt crisis. In fact, Hungary's trade surplus in convertible currencies came to exceed $0.5 billion in 1982 and $0.7 billion two years later. The burden of the adjustment was borne by gross domestic investment, which fell by 31 percent between 1978 and 1984 while domestic consumption rose by 9 percent, only slightly less than the 11 percent increase in the gross domestic product during the period. 1/

The improvement in the balance of trade between 1978 and 1984 did not reflect increased export competitiveness as Hungary's export market shares declined to a considerable extent during the period (Balassa, 1985a). Rather, it reflected decreases in imports, brought about by cuts in investment activity and by increasingly severe import restrictions.

As the adverse economic effects of these restrictions, inter alia on exports, came to be recognized, steps were taken towards the liberalization of imports. The (partial) release of pent-up import demand, supported to the application of expansionary monetary and fiscal policies, contributed to the deterioration of Hungary's balance of trade in convertible currencies with the trade surplus declining to $0.3 billion in 1985.

As to the expansionary measures applied, the National Bank of Hungary provided increased working capital to firms that raised wages over and above the rise in prices, as well as credits to the government that augmented its producer and consumer subsidies, thereby adding to the budget deficit.

1/ Unless otherwise noted, all data originate in official Hungarian sources. The 1986 figures are preliminary.
Correspondingly, domestic consumption rose by 2 percent in 1985, notwithstanding a slight decline in GDP; in turn, gross domestic investment decreased by an additional 3 percent.

Hungary's trade balance has deteriorated again in 1986 as a 2 to 3 percent rise in consumption, associated with increases in real wages and other incomes, has been accompanied by little change in investment, thus raising the growth of aggregate expenditure above that of GDP (1.5 percent) by a substantial margin. The doubling of the budget deficit, to exceed 4 percent of GDP, and an accommodating monetary policy have importantly contributed to these results and Hungary has incurred a $0.2 billion deficit in convertible currency trade.

The decrease in the volume of convertible currency exports between 1984 and 1986, in the face of increases in the total imports of Hungary's main trading partners among private market economies, has been an important factor in the deterioration of the trade balance. Hungary's continued poor export performance, in turn, has been the result of a variety of influences. 1/

To begin with, Hungary's export competitiveness has deteriorated. Calculated by the use of export weights, between 1978 and 1985 the forint appreciated in real terms by 18 percent if the exchange rates are adjusted for

1/ In addition to the factors noted below, reference may be made to the loss of food exports due to Chernobyl that may have amounted to $80 million in 1986.
### Table 1

Real Exchange Rate in Hungary, 1970 - August 1986  
(1976-78 = 100)

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<td><strong>WPI</strong></td>
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<td>Austria</td>
<td>83.8</td>
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<td>93.8</td>
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<td>105.3</td>
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<tr>
<td>Italy</td>
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<td>Yugoslavia</td>
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<td>69.6</td>
<td>55.1</td>
<td>57.1</td>
<td>53.6</td>
<td>60.2</td>
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| **CPI** |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |          |
| Austria | 72.8 | 77.3 | 80.5 | 87.6 | 94.2 | 99.3 | 93.2 | 101.2 | 105.6 | 102.4 | 94.4 | 82.6 | 81.1 | 86.4 | 85.3 | 83.0 | 93.5 | 97.0 | 98.6 |
| Germany | 79.7 | 85.7 | 89.7 | 98.1 | 101.7 | 102.6 | 94.2 | 100.4 | 105.5 | 103.7 | 92.4 | 79.7 | 78.0 | 83.1 | 79.4 | 76.5 | 85.0 | 88.1 | 89.1 |
| Italy   | 110.4 | 113.7 | 115.8 | 110.0 | 110.2 | 116.3 | 96.0 | 100.4 | 103.6 | 104.7 | 103.1 | 92.3 | 90.2 | 100.0 | 99.6 | 97.6 | 107.6 | 110.7 | 111.4 |
| USA     | 118.9 | 120.9 | 113.2 | 103.0 | 107.2 | 105.0 | 101.0 | 102.0 | 97.1 | 93.1 | 88.5 | 98.6 | 104.5 | 117.0 | 126.9 | 128.1 | 115.0 | 114.2 | 111.6 |
| Yugoslavia | 89.2 | 84.4 | 77.8 | 83.3 | 97.4 | 99.8 | 95.4 | 103.0 | 101.6 | 104.3 | 87.5 | 86.8 | 80.1 | 65.6 | 64.4 | 61.9 | 69.6 | 73.1 | 70.6 |

### Real Effective Exchange Rates

**Export and Import Weights**

|        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |          |
| WPI     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |          |
| Austria | 91.6 | 94.7 | 94.6 | 99.5 | 111.1 | 104.4 | 95.5 | 101.2 | 103.3 | 108.5 | 95.9 | 86.2 | 84.3 | 86.7 | 89.1 | 87.3 | 90.8 | 96.2 | 98.7 |
| Germany | 84.9 | 89.0 | 90.8 | 94.4 | 99.6 | 103.7 | 95.2 | 100.5 | 104.4 | 102.6 | 93.7 | 86.2 | 83.6 | 86.0 | 84.3 | 82.2 | 89.3 | 92.5 | 92.7 |
| CPI     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |          |
| Austria | 92.0 | 94.8 | 94.2 | 99.1 | 111.5 | 104.9 | 95.6 | 101.3 | 103.1 | 108.7 | 94.8 | 85.5 | 83.1 | 84.6 | 86.5 | 84.5 | 88.7 | 94.1 | 96.4 |
| Germany | 85.3 | 88.9 | 90.3 | 94.3 | 99.9 | 104.2 | 95.1 | 100.6 | 104.3 | 103.5 | 94.8 | 86.4 | 83.5 | 85.5 | 83.7 | 81.5 | 89.2 | 92.6 | 92.7 |

**Source:** World Bank data base.
changes in wholesale prices, and by 22 percent if the adjustment is made by
the use of consumer price indices. 1/

Furthermore, the fall in investment, accompanied by a substantial
decline in the investment share of industries in which Hungary has a
comparative advantage (see Section 4 below), has not permitted the
transformation of the structure of exports and the upgrading of their
technological level. 2/ The higher profitability and the lower risk of sales
in domestic and in CMEA markets, and the uncertainties associated with
increased reliance on case-by-case interventions by the authorities, have
further discouraged exports. 3/

Yet, increases in exports is a necessary condition for renewed
economic growth in Hungary. Possibilities for efficient import substitution
have been well-nigh exhausted in Hungary's small domestic market. Thus, while
economizing with raw materials (particularly energy) would bring import
savings, economic growth will require the increased availability of foreign
exchange through exports as Hungary cannot continue borrowing abroad.

1/ While the results are explained in part by the depreciation of the
Yugoslav dollar, the Hungarian forint appreciated to a considerable extent
vis-a-vis the German mark and the Austrian shilling as well.

2/ In particular, Hungary's market share in the developed countries' imports
of machinery and equipment fell from 1.25 percent in 1980 to less than 0.8
percent in 1985 (Figyelő [Observer], June 26, 1986, p. 9). -- The same
source notes that, owing to the low degree of technical sophistication of
Hungary's manufactured exports, average unit values declined while
increases were experienced elsewhere.

3/ Evidence on the latter point is provided in Balassa, 1985a, where note has
been taken of several additional factors contributing to losses in export
market shares.
Several measures have been taken to promote exports to private market economies in 1986. They include the depreciation of the export exchange rate by 15 percent in real terms between 1985 and August 1986, irrespective of whether the wholesale or the consumer price index is used as deflator (Table 1); the establishment of four trading houses, together with the elimination of restrictions on the export profile of 38 foreign trade enterprises and the simplification of procedures for obtaining trading rights by industrial firms; increases in profit tax rebates for export-oriented investments from 33 to 50 percent; the elimination of the 15 percent accumulation tax on export-oriented investments, and the concentration of medium-term credits in export-oriented investments; reduced interest rates on short-term export credits; wage preferences to firms increasing their exports; and, last but not least, moral suasion.

Incentives to exports to private market economies are warranted as long as import protection and trade arrangements with socialist countries raise the profitability of sales in domestic and in CMEA markets above that obtainable in these exports. But, the preferential treatment of increments in exports, calculated annually, may discourage exports in years when increases cannot be achieved, so as to show a larger rise afterwards. There have also been reports that products which are exported in response to government pressure are imported by other firms at higher prices (Figyelő [Observer], September 25, 1986).

Furthermore, it is feared that firms will be artificially maintained in life in order to avoid a decline in exports and that the exclusive concentration on export-oriented investments will not ensure the efficient
allocation of investment funds. 1/ At the same time, the provision of credits for export-oriented investments involves a bargaining process as to the amount of exports pledged for a five-year period and there is uncertainty as to the exports actually undertaken. The bargaining extends to firm-specific measures aimed to maintain and to expand exports with little regard to cost.

The efficient way to promote exports involves establishing an equilibrium exchange rate that provides incentives to exports across the board and permits eliminating measures which safeguard and extend high-cost exports. Furthermore, in raising import prices, the devaluation will serve as a restraint on purchases from private market economies.

It would be desirable to establish the new exchange rate instantaneously, so as to reduce uncertainty that led to postponing exports in the past. In setting the new rate, account should be taken of the fact that the exchange rate for exports, adjusted for changes in wholesale prices, in August 1986 represented a 7 percent appreciation in real terms compared with 1978 (10 percent if adjusted by the consumer price index), albeit the shift from borrowing abroad to servicing the external debt would have required a devaluation. And although the forint was devalued by 8 percent against a basket of currencies in September 1966, the need to eliminate firm-specific export support measures further augments the required exchange rate change.

1/ According to one author, "it is an error to assume that we can increase our export capacity by promoting exclusively export-oriented investments. The experience of the last several years indicates that such actions could help the situation of external equilibrium only for a short time. The permanent improvement of our [competitive] position is possible only through the overall improvement of conditions in our national economy (Barta, 1986, p. 840 -- italics in the original).
A customary objection to devaluation in Hungary is its inflationary impact. At the same time, such an effect is necessary in order to offset increases in real incomes in 1985 and 1986, which were not commensurate with changes in domestic production and led to higher imports. Nevertheless, measures would need to be taken to limit the inflationary effect of an once-for-all devaluation and to avoid that it gives rise to an inflationary spiral.

On the example of the September 1986 devaluation, firms operating under the so-called competitive price system should not be allowed to raise prices on domestic sales in proportion with the rise in export prices, resulting from an once-for-all devaluation; nor should prices be adjusted on CMEA sales. Apart from reducing its inflationary effects, this is necessary to enhance the effectiveness of the devaluation that requires increasing the profitability of sales in Western -- as against domestic and CMEA -- markets through changes in relative prices. And, most importantly, the government should reverse the expansionary monetary and fiscal policies followed in 1985 and in 1986.

2. The System of Incentives

A more general issue concerns the deterioration of the efficiency of Hungarian industry. While total factor productivity, expressing changes in the combined productivity of labor and capital, increased at an average annual rate of 2.8 percent between 1968 and 1978, it fell by 0.6 percent a year between 1969 and 1982 and showed only small improvements in subsequent years (Csernenszky-Demeter, 1986, p. 3).

The increased use of firm-specific interventions after 1978 has contributed to the deterioration of efficiency in the Hungarian industry. Poorly-performing enterprises have received government support in the form of
reductions in taxes, easing of credit conditions, price increases, preferential wage arrangements, and straight subsidies while good performance has often led to additional charges. In order to improve the operation of the market mechanism in Hungary, and to enhance the effectiveness of the devaluation, it would be necessary to narrow the scope of firm-specific measures, with a view to their elimination over time, thereby hardening the budget constraint for the firm.

It has been suggested however that, under present conditions, the removal of firm-specific support would result in the bankruptcy of 40-50 percent of Hungarian firms. This has been said to be the case because of the lack of effective labor and capital markets in Hungary (Tardos, 1985, pp. 1290-92).

The statement assumes that firms could not improve the use of their existing resources (increased operational efficiency or the utilization of internal reserves, according to the Hungarian terminology). Such is hardly the case, given the low productivity of labor and capital in Hungarian industry that is linked in part to poor work performance and in part to excess labor, hired because of the fear of labor shortages, and the application of a wage system that encouraged lowering average wages through the employment of low-skill labor in the past. At the same time, the soft budget constraint for the firm has not provided a penalty for excessive hiring.

There are examples of substantial improvements in operational efficiency even in private market economies (e.g. Fiat in Italy and Chrysler in the United States) where efficiency levels are relatively high. There have also been cases where improvements have occurred in Hungarian firms in response to the threat of closing down. This has happened in the Hungarian
Cable Works, although not in Kontakta, a producer of parts and components, where continued firm-specific support has limited the incentives to do so (Figyelem [Observer] August 21, 1986, p. 6 and December 5, 1985, p. 4).

But, unless possibilities exist for increasing production, which may not be the case in poorly-performing firms, improvements in operational efficiency will entail reducing the firm's labor force. This should not be considered undesirable to the extent that the firm sheds labor whose productivity is below its cost. And, the workers thus freed would be available for other activities, where labor shortages exist.

An additional consideration is that the relative prices of labor and capital are distorted in Hungary. The introduction of the 10 percent tax on labor in 1985 provides only a partial offset for the cost of social benefits financed from the government budget. In turn, the cost of capital is augmented by high real interest rates and the price-raising effects of high customs duties on imported machinery, with the accumulation tax further increasing the cost of new investment.

According to one calculation, the profitability of new investments fell from over 30 percent in 1969 to 10 percent in the late 1970s and to nil in 1980-81, with a slight increase to 2 percent in 1982-83 (Kunvári, 1986, p. 828). The low profitability of new investments, in turn, entailed a decline in the average profitability of capital in Hungarian industry from over 20 percent to below 15 percent during this period (Ibid), with after-tax profits amounting only to 4 percent of gross value added in 1985 (Erdoš, 1985, p. 3).

In view of the declining profitability of investments, it may come as a surprise to outside observers that there has been excess demand for investment funds in Hungary throughout the period. The solution to this
puzzle lies in the existence of a soft budget constraint. Firms have correctly anticipated that they can have recourse to price increases and various other forms of government support to compensate for the low -- and even negative -- profitability of their investments.

There is thus need to harden the budget constraint firms face. Also, the relative prices of labor and capital would need to be adjusted. This may be accomplished through changes in the tax system. For one thing, taxes on labor would have to be raised to finance the social benefits provided by the government; for another thing, it would be desirable to reduce duties on capital goods and to eliminate the accumulation tax.

Further changes in the existing regulations would be necessary in order to ensure the adequate operation of labor and capital markets in Hungary. Orderly adjustment requires improvements in the operation of labor markets while capital markets need to provide funds for firms which can sufficiently upgrade their operations to become profitable. Labor and capital markets have the additional function of ensuring the flow of resources from low-profitability to high-profitability activities. The measures that may be taken to improve the operation of these markets will be considered in the following.

3. Labor Markets

Since the mid-1970s the wage bill of Hungarian enterprises in the material-producing sectors has increased substantially relative to profits, with the differences rising to a considerable extent after 1978. Thus, while in 1975 the wage bill approximately equalled profits, the former exceeded the latter by about 40 percent in 1984 (Kunvári, 1986, p. 832).
This result may be explained by pressures to raise wages as a result of the excess demand for labor under the soft budget constraint. The hardening of the budget constraint would reduce the labor needs of firms which can improve their operations, and labor will also be released by firms which cannot make the necessary improvements and will close down. One should not fear, however, that these changes would lead to wholesale unemployment.

To begin with, unfilled vacancies exceed 50 thousand, compared with a loss of altogether 15 thousand jobs in 1985, when the intervention of the official labor placement bureau was necessary in only 700 cases to find jobs for the displaced workers (Gulyás, 1986). At the same time, the number of unfilled vacancies are understated in Hungary as only a minority of firms utilizes the services of a labor placement bureau, preferring the use of informal channels instead. Furthermore, there is a tendency to underestimate labor mobility by focusing on job opportunities in a particular geographical location and in a particular occupation.

Thus, one should encourage geographical as well as occupational labor mobility. As to the former, there is need to reduce the cost of movement just as the cost of migration is partly financed by the state in certain private market economies through tax allowances. As to the latter, budgetary contributions to the cost of training should be accompanied by assistance to firms that undertake on-the-job training.

Small private firms could also create considerable employment if the conditions for their operation and, in particular, the regulations on the number of workers they can hire, are liberalized. These firms can importantly contribute to providing for the needs of the population and increase competition in Hungarian industry.
The recent introduction of a six months period of wage payment in the event of the loss of a job, compared with the regular period of one month, and the payment of unemployment compensation for an additional six months by firms that close down some or all of their operations, will ease the transition for workers that have become superfluous. But, notwithstanding the conditions contained in the relevant regulations, there is the danger that the payment of 100 percent of wages for six months, 75 percent for the next three months, and 60 percent for the last three months will induce people to postpone taking a job while working in the second economy as has been the case in Western European countries.

The hardening of the budget constraint would further provide inducement to firms to resist claims for large wage increases. It should also limit wage demands in firms making profits, thereby alleviating the disparities that have arisen as such firms may have raised wages by as much as 18 percent in 1985 and 1986 combined whereas increases were as little as 2-3 percent in firms making losses which are under central wage determination (Révész, 1985, p. 915).

In this connection, it should be emphasized that in private market economies wages do not depend on the profitability of the firm. While there may be differences in wages in accordance with differences in labor efficiency, wages tend to be equalized for equivalent work through the operation of the labor market.

This would also happen in a socialist market economy under a hard budget constraint, where profit maximization is the objective of the firm and there is an effective labor (and capital) market. Under these conditions, there would be a tendency towards the equalization of wages as firms would not
wish to pay higher wages for equivalent work than others. At the same time, firms that are unprofitable at the going wage would cease their operations.

One would, then, have a situation approaching that of the vgm-s, the acronym for a workers' collective in the firm that undertakes certain tasks after hours for the payment of a fixed sum. More generally, the principle of compensation for work actually performed, applied in the vgm's, could find application to work done during regular working hours. In this way, one could ensure the profitability of the firm while paying higher wages for more efficient work as is done in the vgm's. 

The introduction of income taxes paid on all personal incomes, irrespective of source, as proposed in the November 19-20 resolution of the Central Committee of the Hungarian Socialist Workers' Party, would entail partially replacing existing taxes on wages at the firm level. Tax rates would need to be set so as to establish macroeconomic balance in consumer goods markets, which was to have been accomplished so far largely through the taxation of wages at the firm level, and with limited results because the regulations could not be made watertight.

The situation is complicated by reason of the fact that in most firms management is responsible to the workers' collective in Hungary. Now, the danger of excessive wage increases exists in firms making high profits as workers will wish to share in these profits. At the same time, paying dividends to workers may be objected to on the grounds that they are not the

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1/ This point is made by Pirityi (1986).
owners of the firm. Correspondingly, for the time being, the application of some rules limiting wage increases may be necessary. 1/

4. The Volume of Investment and its Allocation

The discussion of capital markets may be prefaced by reference to the availability of investment funds and their allocation in Hungary. The volume of gross domestic investment fell by one-third between 1978 and 1985, with gross fixed investment declining by one-fifth as a considerable decumulation of inventories occurred. However, there was a much larger decline in net investment, i.e., after allowance made for depreciation, which did not reach one-third of the 1978 level and hardly exceeded six-tenths of the 1970 level in 1985.

Industry's share of gross fixed investment fell between 1978 and 1985 from 36.9 to 33.2 percent, expressed in terms of constant prices, while the share of agriculture declined from 13.4 to 11.0 percent and that of transportation and communication decreased from 11.6 to 11.3 percent. In the same period, public and private investment in housing, taken together, rose from 15.9 to 19.2 percent.

Within industry, substantial increases occurred in the investment shares of mining (chiefly coal) and electrical energy, with the former rising from 10.5 to 22.2 percent and the latter from 14.6 to 20.6 percent between

1/ It is a different question that one should avoid the error of announcing in advance that above a certain annual wage increment the wage tax will become practically prohibitive in the following period, thereby inducing excessive wage increases before the end of the year. This occurred in Hungary, leading to average increases in wage payments of 17.2 percent, including year-end bonuses, in November-December 1985, compared with the corresponding period of the previous year, as against the year earlier figure of 9.0 percent (Figyelő [Observer], March 6, 1986).
1978 and 1985. As the steel and chemical industries approximately maintained their share in industrial investment (23.6 percent in 1978 and 23.1 percent in 1985), the declines were concentrated in the industries of transformation, in particular engineering (from 18.6 to 12.1 percent) and light industry (from 10.1 to 6.1 percent). By comparison, production shares in 1985 were 12.8 percent for mining and electrical energy, 29.0 percent for steel and chemicals, and 40.8 percent for engineering and light industry.

Yet, it is in the engineering and light industries that Hungary has a comparative advantage, by reason of the availability of relatively low-cost skilled and technical labor. These industries have also experienced increases in total factor productivity in the 1980-84 period while total factor productivity fell in the production of coal, electrical energy, and steel (Csernenszky-Demeter, 1986, p. 3).

The described pattern of investment allocation has thus contributed to the deterioration of the efficiency of Hungarian industry noted in Section 2 above. Together with the reduction in total industrial investment and the limitations imposed on the importation of machinery from developed countries, it has also led to the decline of the technological level of the Hungarian engineering and light industries vis-a-vis private market economies. In this connection, two examples may be of interest.

In contrast to the rapid developments that occurred in private market economies, the growth in the use of numerically-controlled machine tools has slowed down to a considerable extent in Hungary after 1980. Also, the

1/ It may be added that while the Common Market countries limit the importation of textiles and clothing, Hungary has considerable possibilities for upgrading these exports and to export elsewhere.
competitiveness of Hungarian industry has suffered as, owing to the limited and uncertain availability of investment funds and foreign exchange, "with few exceptions, it has not been possible to establish flexible machinery complexes due to the purchase of numerically controlled machine tools at different times, with different technical levels, programming requirements, and completeness and from different countries and firms, and of different types" (Nádudvari, 1986, p. 7).

In the textile industry, the average age of Hungarian machinery has been rising and it much exceeds that observed in private market economies. Also, the constraints imposed on new investment and, in particular, on the importation of foreign machinery, has not permitted the vertical integration of operations required by modern production. Correspondingly, labor productivity in the Hungarian textile industry does not reach one-seventh of labor productivity in the developed countries (Figyelő [Observer], October 2, 1986).

For the period of the VIIth Five Year Plan (1986-90), the combined investment share of mining and electrical energy is projected at 42 percent. This compares with relative shares of 38 percent in the 1981-85 and 27 percent in the 1976-80 periods of the VIth and Vth Five Year Plans, respectively, expressed in terms of current prices. 1/

In the case of coal, three alternatives have been put forward, involving prospective annual production volumes of 29, 24, and 17 million tons, compared with 26 million tons in 1985. Even the second alternative

1/ However, according to the figures cited in the Five Year Plan document, the investment share of mining and electrical energy was 43 percent in terms of 1984 prices in 1981-85.
would necessitate substantial investments, however, owing to the need for mechanization, as there are few miners to replace those who retire and Hungary has had to import miners from Poland whose number has reached 6-7000. At the same time, domestic production costs exceed the price at which coal can be obtained from Western Germany by 50-60 percent; they reportedly are about 80 percent above the domestic price of coal in Hungary.

The recent decline in the price of petroleum to $15-16 per barrel on the world market further points to the need for reducing the investment allocation of Hungarian coal industry. In this connection note that, after having raised the production target to 20 million tons immediately following the May 1981 elections, the French socialist government reduced this target to 11-12 million tons at a time when the oil price was $28 per barrel (Balassa, 1985b).

Apart from lowering the investment allocation of the coal industry, the adoption of the 17 million ton production target would permit closing down several high-cost mines in the Northern part of Hungary. Even if the present oil price will not last beyond 4-5 years, nuclear capacity may be brought on stream in the meantime, while making further efforts to lower energy requirements. In fact, Hungary's energy use reportedly exceeds that of private market economies by a considerable margin.

Among the sixteen countries for which data are available, in 1983 Hungary led with 49.5 megajoules per dollar of GNP, followed by China (40.5), Romania, the Soviet Union, and Czechoslovakia (between 30 and 40), East

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1/ Interview by Ferenc Vissi, the Deputy President of the Material and Price Board, reported in Figyelem (Observer), March 6, 1986, p. 3.
Germany, Poland, and Yugoslavia (between 20 and 30), the United States, the United Kingdom, Italy, and West Germany (between 10 and 20), and Japan, Sweden, and France (between 8 and 10) (Chandler, 1986, Table 2). And, while these comparisons are distorted by the choice of exchange rate conversion ratios, and the use of more realistic conversion ratios puts Hungary below other socialist countries as far as energy consumption is concerned, the high density of population should reduce Hungary's transportation needs below that of most other countries.

Lowering energy use per unit of output would require raising energy prices. Fuel oil prices are between one-half and one-third lower in Hungary than in major Western European countries (Ibid, 1986, Table 10) and the consumer prices of household electricity, heating oil and natural gas are greatly subsidized. At the same time, the latter uses are very responsive to price; thus, for the 1970-84 period, the long-term price elasticities of demand were estimated at 1.6 to 2.0, 0.9 to 1.1, and 4.5 to 5.3 in these three uses, respectively (Dobozi, 1986, Table 8).

It would further be necessary to de-emphasize heavy industry, in which Hungary has a comparative disadvantage, owing to the lack of domestic raw materials and the limited availability of capital. Within heavy industry, it would be desirable to reconsider the recent decision of maintaining steel production at present levels, which would involve continued exports at high subsidies. France again provides an example as, following an increase in 1981, production targets were reduced considerably in 1984 (Balassa, 1985b).

In Hungary, this would involve adopting earlier proposals to reduce capacity by closing down a high-cost steel mill. In this connection, note that, with 57 percent of its steel produced by the inefficient open hearth
process and only 11 percent by recycling electric arc, the Soviet Union alone among major steel producing countries has more outdated steel plants than Hungary, where these ratios are 51 and 13 percent. The open hearth process is used to produce 29 to 45 percent of steel in other socialist countries and India, which has extensively applied Soviet technology, but account for less than 10 percent of output in private market economies. At the same time, the share of the electric arc process ranges from 15 to 31 percent in socialist countries and India and between 19 and 61 percent in private market economies (Chandler, 1986, Table 3).

It would further be desirable to reduce the investment allocation of the heavy chemical industry that was excessively promoted in the 1970s despite its high energy cost. In turn, improvements in the technological level of Hungarian industry and the transformation of the export structure would necessitate increasing investments in the engineering and light industries. Apart from exploiting Hungary's comparative advantage in these industries, the proposed changes in investment allocation would alleviate environmental concerns.

Investments would also be needed to upgrade the food industry, where outdated processing facilities, packaging, and canning have adversely affected the competitiveness of Hungarian products in recent years. And, Hungary has considerable possibilities in developing an integrated industry of aluminium and aluminium products.

However, doubts may be expressed about the desirability of establishing a car assembly facility in Hungary. Apart from the fact that the proposed assembly of 100,000 automobiles a year would not provide the economies of scale necessary for international competitiveness, the project
would involve the use of scarce foreign exchange without offsetting exports of parts, components and accessories.

On the example of other small European countries, a more appropriate solution would be to engage in the production of car parts for assembly abroad, the proceeds of which could be used to purchase automobiles for convertible currencies. And while it has been suggested that the quality of domestic steel is not appropriate for this purpose, high-quality steel could be imported. This would also be necessary for upgrading Hungarian exports of machinery and machine tools. At the same time, it would permit reducing domestic steel production which not only involves high costs but is very energy intensive, requiring on the margin imports for convertible currencies.

At the same time, there is need to improve infrastructure, including transportation facilities and, in particular, communications. While Hungary was one of the pioneers in establishing a telephone network, this is now woefully inadequate for meeting the needs of modern industry. This conclusion applies, a fortiori, to the new branches of telecommunications. 1/

The investment needs of modernizing the industries of transformation and providing for the necessary infrastructure may exceed the possible savings attainable in reducing investment plans for basic industries. It would be desirable, therefore, to increase the share of investment in the gross domestic product in Hungary.

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1/ As stated in a summary of articles dealing with telephones, "a service industry that is one of the most dynamic (if not the most dynamic) in the world has gotten to the brink of bankruptcy in our country in recent years. The neglect of the development of infrastructure over several decades greatly contributed to this desperate situation" (Figyelő [Observer], August 7, 1986).
It may be objected that, despite recent declines, this share is still relatively high, 25 percent, compared with an average of 21 percent in developed countries and 23 percent in developing countries (World Bank, 1986, Table 5). But, the Hungarian investment share is overstated by reason of the overestimation of the prices of capital goods relative to consumer products and services that are widely subsidized.

According to one estimate, the adjusted share of gross domestic investment in GDP is 22-23 percent in Hungary (Barta, 1985, p. 836). Furthermore, according to official data, the share of net investment in national income did not reach 18 percent in 1985 in terms of current prices and it was only 10 percent in terms of 1980 prices, which still overestimate the share of investment. ¹/ And whereas the gross investment figure matters for the introduction of new technology, net investment is relevant from the point of view of increases in productive capacity.

The shortage of investment funds, and the lack of possibilities for foreign borrowing, puts a premium on foreign direct investment in Hungary. Such investment has the further advantages of bringing technological, managerial and marketing know-how to Hungarian industry. Also, it is superior to bank loans as it does not involve a fixed income obligation and it is preferable to the purchase of licenses as it ensures the continuous upgrading of technology.

Apart from the two newly-established banks, foreign direct investments totalled only $35 million at the end of 1985, and industrial

¹/ According to the same author, the 12 percent share of net investment in 1984 in constant prices was only 8 percent if adjustment is made for price distortions (Ibid).
investments did not exceed $10 million in total. This is explained by the requirements of majority participation of domestic interests, the high rate of taxation, the high duties on imported machinery, the complicated accounting requirements, and the bureaucratic difficulties of granting permission for foreign participation. Also, Hungarian firms that wished to have a foreign partner were reportedly discouraged by the authorities prior to 1986. 1/

The new regulations introduced on January 1, 1986 ease the requirements of majority domestic ownership, reduce the rate of taxation, postpone the payment of duties in imported machinery by five years, strengthen the accounting procedures, and simplify the process of granting permission. Nevertheless, problems remain, including the lack of free utilization of the paid-in foreign exchange contribution of the foreign partner, import licensing, and price control.

The changes in the regulations reportedly led to considerable increases in foreign direct investment in the first nine months of 1986 with concentration in manufacturing industry and banking. Further simplifications of the regulations would be desirable in order to attract foreign direct investment in substantial amounts. More importantly, there is need for the government authorities to make a concerted effort to promote foreign direct investment.

5. Capital Markets

The shift of investment activity from heavy industry towards the industries of transformation should entail reducing the directive role of the state in investment decisions, thereby reversing recent tendencies toward

1/ Interview by Béla Csikós-Nagy in Figyelő (Observer), January 16, 1986.
centralization. The adverse effects of these tendencies have often been noted in Hungary. In fact, during the 1981-84 period, the state provided 24 percent of investment funds for low-profitability firms, which had an average profit rate of 1.2 percent, while providing only 4 percent of investment funds for high-profitability firms, which had an average profit rate of 16.3 percent. As a result of government interventions, the rate of investment by the two groups of firms was practically the same, notwithstanding the observed large differences in profitability (Várhegyi, 1986, p. 5).  

The decentralization of investment decisions would link investments to firm profitability as envisaged by the November 19-20, 1986 Party resolution referred to earlier. In turn, profits would need to be linked more closely to enterprise performance through changes in exchange rates and the hardening the budget constraint for the firm, as suggested above. It would further be desirable to provide incentives for household savings, to promote the use of these savings in efficient investments, and to ensure the movement of funds from low-profitability to high-profitability firms.

Interest rates on savings deposits have traditionally been negative in real terms in Hungary. This is not the case for bonds that have recently been issued for purchase by households. The tax-free interest rate on bonds is 11 percent, compared with 3 to 7 percent on savings deposits. At the same time, experience indicates that bond purchases by households have not been at the expense of savings deposits that are used essentially as a down payment for housing.

1/ As discussed further below this has meant promoting large firms of low profitability.
In order to step up investment activity, it would be desirable to substantially increase bond issues to households, which totalled 5.3 billion forints by mid-1986. This would require facilitating the issue of bonds by individual firms, as well as improving existing procedures for the issue and the trading of bonds.

At present, the government provides a guarantee to bond holders, with identical rates of interest paid on all bonds. Removing the guarantee or, initially, differentiating the guarantee fee, would make the desirability of the bond dependent on the creditworthiness of the issuer, resulting in differences in interest rates depending on risk. There would further be need to establish a secondary market for bonds where transactions are executed under an auction system. The newly-established banks could act as brokers in this market, taking positions in bonds for which they served as underwriters.

Bond issues may also provide a vehicle for the movement of funds among firms. By mid-1986, only bonds valued at 2.0 billion forints were subscribed by other firms. Rather, firms tend to use their profits and amortization funds in self-investment, with little regard to yield as they expect to be bailed out by the government in the event that the investments sour. The taxing of interest paid on bonds and low interest rates on deposits with the banks also favor self-investment.

The hardening of the budget constraint, together with the elimination of taxes on interest paid on bonds and higher interest rates on bank deposits, would encourage firms with poor investment prospects to lend the funds they have available. The establishment of an active capital market would thus contribute to the flow of funds from low-productivity to high-productivity uses. It would also permit firms in difficulties to borrow money in order to
improve their operations, provided that they have favorable prospects for the future.

In fact, it would be desirable to permit the issue of securities of varying maturities by the firms, with bonds providing for their investment needs and commercial paper for working capital. In this connection, reference may be made to the experience of China that has recently allowed the issue of commercial paper by state enterprises.

Beyond their role in the bond market, the newly-established commercial banks would perform important functions of financial intermediation in Hungary. At the same time, for the banking system to operate efficiently, one should ensure that the banks operate on the basis of business principles and there is sufficient competition among them. Various measures would need to be taken in order to establish the conditions for the pursuit of these objectives.

To begin with, the banks should be free to decide on their lending operations, thus limiting the role of plan priorities and central guidelines. This suggests the need to increasingly regulate bank lending through reserve requirements, with the refinancing by the National Bank envisaged at present assuming a subsidiary role. Also, the banks should be given the right to collect time and savings deposits that is not actually the case.

At the same time, the banks should be made fully responsible for profits and losses in their operations, and their profits should be subjected

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The proposed changes would also permit alleviating the constraints imposed on the firm by the central regulation of working capital that has been justly criticized (Gado, 1986, p. 3).
to taxes at the same rate as the profits of industrial enterprises. These measures would aim at providing them with incentives to maximize profits.

Finally, competition would need to be ensured by reducing size differences among the commercial banks and avoiding specialization according to industries and regions. For the same reason, it would be desirable to establish additional commercial banks, including those with foreign participation.

It would further be desirable to increase the autonomy of the five financial institutions that have been created to foster innovation in Hungary. These institutions should be provided with their own funds and their decision-making power over centrally-allocated funds increased.

The next question concerns the practical application of the bankruptcy law, under which firms may be rehabilitated or closed down as conditions warrant. Apart from the liquidation during the 1970s of the Hungarian hat-making factory, the products of which ceased to be demanded, there are only two recent cases where a state enterprise has been closed down in Hungary. And, while 47 firms are under review in the application of the new bankruptcy law, which became effective on September 1, 1986, these are mostly small firms and co-operatives (Figyelem [Observer], September 18, 1986).

Yet, the problems have been concentrated in large state enterprises. In 1982, 11 large firms accounted for 80 percent of accumulated losses of state enterprises and in 1984 there were 11 large enterprises (the two lists overlap to a considerable extent) that experienced losses over several years (Lamberger, Szalai, and Voszka, 1986, p. 27). This is hardly surprising, given that the establishment of large firms in Hungary did not respond to economic imperatives but was the result of industrial concentration.
undertaken on non-economic grounds prior to, as well as following, the implementation of the 1968 reforms.

In recent years, steps have been taken to break up large firms, which had a quasi-monopoly position. But the government has continued to favor large firms of low profitability with investment funds. Thus, in the 1982-84 period, the 73 largest firms had an average profit rate of 5.4 percent but, with the government providing 37 percent of their investment funds, had a higher rate of investment than the next group of large firms, which had an average profit rate of 7.2 percent and received 17 percent of their investment funds from the state, and small and medium-size firms, which had an average profit rate of 8.1 percent and received 9.5 percent of their investment funds from the state. As a result, the rate of investment of the 73 largest firms exceeded that of the other two groups (Várhegyi, 1986, p. 5).

Breaking-up large firms would permit separating well-operating units from those that cannot be made profitable. At the same time, in limiting closings to certain units within individual firms, one can avoid the political dilemma involved in the bankruptcy of large enterprises.

Much attention has been given recently to the rehabilitation of firms that are in difficulties. In this connection, it should be noted that in the past such efforts have remained temporary and the problems have re-emerged soon afterwards (Laky, 1985). At the same time, the budgetary cost has been substantial, amounting to over Ft 10 billion a year. As noted by Gyula Csáki, a Deputy Finance Minister, these unfavorable results find their origin in the emphasis on financial rescue operations, generally subject to bargaining between the firms and the government without an overall plan for the
rehabilitation of the firms' productive activity (Figyél,H, [Observer], September 11, p. 1).

The new bankruptcy law provides for the preparation of overall plans to rehabilitate firms in difficulties. Nevertheless, as an informed observer noted, the danger exists that rehabilitation becomes a slogan that is invoked by every firm in difficulty in order to obtain financing, thereby imposing a large burden on the government budget and on the national economy (Varga, 1986, p. 3). Yet, in view of Hungary's overall financial limitations, there is a choice between making financing available for the development of efficient enterprises and for trying to save inefficient ones. Correspondingly, emphasis would need to be given to the use of the firm's own resources in effecting improvements in its operations.

An additional consideration is that continuing losses of inefficient enterprises represent a considerable drain on resources. Closing-down enterprises would thus contribute to the reallocation of resources to more efficient uses. At the same time, the sale of the assets of closed-down enterprises may not only bring financial returns but permit a more productive use of these assets.

And, once bankruptcy proceedings are initiated, other firms may reinforce their efforts to improve operations and to avoid excessive wage increases. 1/ Thus, while it has been suggested to keep such proceedings in

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1/ This will not happen as long as firms can confidently expect government support. Thus, it has been reported that two large firms in difficulties raised wage costs by about 10 percent in 1985 (Figyél,H [Observer], December 5, 1985, p. 4 and September 25, 1986, p. 7).
camera, there is rather need to give them considerable publicity so as to increase its "educational" effect.

Conclusions

This paper has reviewed the macro-economic situation in Hungary and made recommendations for a restrictive macroeconomic policy and for the efficient promotion of exports. Note has further been taken of the need to harden the budget constraint facing the firm by limiting, and over time eliminating, firm-specific financial support that is to be replaced by overall macroeconomic policies regulating aggregate demand. This should be accompanied by measures taken to ensure the adequate operation of labor and capital markets while adjusting the relative prices of these factors of production.

In regard to labor markets, emphasis has been given to measures aimed at ensuring labor mobility and avoiding excessive wage increases. In turn, a variety of measures may be used to increase the availability and to ensure the efficient use of capital in Hungary.

Investment activity may be stepped up by limiting wage increases, broadening the availability of financial instruments to households, and extending recent measures aimed at attracting foreign direct investments. At the same time, there is need to reorient investment activity from heavy industry towards the industries of transformation, with greater scope given to firm decision-making in the process.

The efficient allocation of investments would further be promoted by broadening the scope for the flow of financial resources among firms through the bond market and via the banks. At the same time, it should be ensured
that the banks act as profit-making institutions and there is sufficient competition among them.

Closing-down inefficient firms would also free financial resources for more efficient uses while care should be taken that the rehabilitation of poorly-functioning firms is not done at the expense of efficient enterprises. Rather, the emphasis should be on the use of the firms' own resources in effecting improvements in operations.

Another important issue is the need to establish "property interest," with a view to increasing the value of the firm. $^{1/}$ This raises the question of valuation by financial markets as well as ownership rights. An analysis of these questions is left for a later occasion.

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$^{1/}$ For perceptive analyses, see Tardos, 1985 and Bársony, 1986.
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