Lars Wohlin:  
Competitiveness, the Balance of Payments and the Allocation of Resources — a Discussion with Reference to IIESR's Long-Term Appraisal*

The Industrial Institute for Economic and Social Research, IIESR, presented its Long-Term Appraisal of the Swedish economy for the period 1974 to 1980 last spring. The reports of the Government's Long Term Planning Commission have become increasingly important as a basis for shaping economic policy. Therefore, the Institute is deemed important to carry out its own independent analysis of the long-term conditions for the development of the Swedish economy. The aim of our analysis is to produce well worked out paths of development for the Swedish economy, paths which we have judged to be feasible using various combinations of economic policy measures, and which are in harmony with the various main currents of the political debate. Here, margin is allowed for other interpretations of the tendencies of economic developments, for other estimates of the economic relationships which rule in the economy and for the possibility of illuminating economic questions not treated by the Long Term Planning Commission.

Each long-term appraisal has attempted to focus discussions on those questions which have most critical for the Swedish economy during the period concerned. The discussion in the 1970 Report from the Commission dealt to a great degree with the problem of external balance. Different ways for Sweden to restore equilibrium to its balance of payments on current accounts were sketched. De facto, however, questions about employment came to dominate discussions of economic policy owing to the unemployment generated by the restrictive economic policy of 1971-72. The question of employment has been concerned on the one hand with the total degree of mobilization of the labour force and on the other with the distribution of employment between the private and public sectors. The public discussion in Sweden about employment has shown how important it is to make it clear that the distribution of employment between the private and public sectors must be determined on the basis of the political decision as to how consumption is to be divided between the private and public sectors. IIESR’s Long-Term Appraisal is linked up with this discussion. The various alternatives for the development of the economy have been framed with consideration taken to the differences in the rates of growth of public and private consumption.

The question of employment will probably be less prominent during the period from 1975 to 1980. Rather, it would seem that the presently current questions revolve around inflation and foreign exchange policy, competitiveness and the balance of payments on current account will remain a central theme in the public discussion in Sweden for several years. Sweden’s international competitive position can be improved in three main ways. First, by devaluing the Swedish krona. However, this would conflict with the desire to keep the domestic rate of inflation low. A second method would be to shape an incomes and taxation policy designed to limit increases in labour costs.

Thirdly, by taking measures to increase productivity. Following an introductory presentation of IIESR’s Long-Term Appraisal, three methods will be discussed on the basis of the assumptions and calculations of the appraisal. In discussing these questions it is desirable to indicate which real economic growth trend can be expected. It is also necessary to keep in mind that the conditions for compatibility of the three targets, equilibrium account, a low rate of inflation and a high rate of economic growth are influenced by the distribution of consumption between the public and private sectors chosen.

Two paths for development

IIESR’s Long-Term Appraisal has been built up around two main alternatives. Both alternatives lead to equilibrium on the current account in 1980. It is assumed that the degree of utilization of capacity in the economy will be the same in 1980 as it was in 1974.

In the “public-expansive” alternative — alternative P — public consumption grows by 3% annually during 1974-1980, measured in fixed prices, while private consumption increases by only 2% annually (see Table 1).

The other alternative places strong emphasis on private consumption, which increases at an annual rate of 3.4%, while public consumption increases only by 1.5% per year. About two-thirds of the industrial goods produced go to private consumption. For this reason a high rate of growth of private consumption requires a higher rate of growth for industrial production than in alternative P. This alternative has therefore been called the “industry-expansive” alternative — alternative I.

Measured in current prices, 46% of the total increase in consumption for alternative P goes to the public sector while 54% goes to the private sector. The corresponding shares for alternative I are 95% and 85%.

In the public-expansive alternative it is assumed that GNP will increase by 2.9% a year on the average between 1974 and 1980 and in the industry-expansive by 3.4%. The reasons for the difference in the GNP’s rate of growth in the two alternatives are as follows. In the first place, the rate of growth of productivity in the public sector is, broadly speaking, zero, as measured in the statistics. This means that rapid growth in the public sector leads to a lower average rate of productivity increase in the economy as a whole. In the second place, it has been judged that productivity will increase more rapidly within industry when the rate of growth of industrial production is high.

A strikingly different distribution of consumption between the public and private sectors also has consequences for the development of the economy in other respects than production and productivity in the various sectors. Thus, it is estimated that the supply of labour will increase somewhat more rapidly in connection with a significant expansion of the public sector, since the demand for female labour would increase. However, the net immigration of foreign labour could be expected to be greater in the industry-expansive alternative.

The number of persons employed is expected to increase substantially, by between 175,000 and 200,000 (+0.8% per annum) primarily through increased female participation. The average annual working time is assumed to decrease as the result of increased part-time work, increased absence, etc. The total number of hours worked in the economy will be almost unchanged, providing no general reduction of working time goes into effect before 1980. As a result, the rate of growth of the GNP may be greater than during the first half of the 1970’s despite the slow rate of increase in productivity.

Employment in the public sector increases by 175,000 persons between 1974 and 1980 in alternative I and by about 300,000 in alternative P. According to the calculations of alternative P, the number of persons employed in industry will...
The growth of industrial production and the balance of payments

Differentiation of the alternatives with respect to the distribution of demand illuminates the different requirements for industrial expansion as an emphasis on public and private consumption, respectively, gives rise to industrial production must be sufficiently large to satisfy the domestic demand for industrial goods as well as to yield surplus in foreign trade required to cover the increasing deficit on the services and transfers balances.

Table 2 shows the requirements for an increase in industrial production resulting from the growth of the various components of the GNP in the two alternatives. The domestic consumption of industrial products increases by 20% and 34% per annum, respectively, in the two alternatives. Here, consideration has been taken to the indirect as well as to the direct use of industrial products. The growth of the public sector, which uses little imported or industrial goods, requires only an insignificant increase of industrial production in both alternatives. Since most of the increase in public consumption is assumed to be

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<th>Share of the annual increase in demand for industrial goods</th>
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<tr>
<td><strong>Private consumption</strong></td>
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<tr>
<td><strong>Investment</strong></td>
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<tr>
<td><strong>Industrial production</strong></td>
<td><strong>Industrial production</strong></td>
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Source: IESR's Long-Term Appraisal

In the welfare sector, which consumes little industrial production. Differences in the final domestic consumption of industrial production are a result of differences in the rates of growth of private consumption and investment in the two alternatives. It is estimated that about two percentage points of the annual rate of growth of industrial production are necessary to increase the balance of trade sufficiently to obtain equilibrium on the current account by 1980. In alternative I the export of industrial goods is calculated to increase by 9% while the import of industrial goods increases by 6.6% per annum. The corresponding figures for alternative P are 7% and 5% per annum.

It should be underlined that the reason such a large portion of the growth of industrial production must be used to achieve equilibrium on the current account is only to a minor degree the fact that it is necessary to restore the equilibrium lacking in the initial situation. About three quarters of the improvement in the balance of trade IESR has calculated to be necessary is because of an expected substantial decrease in net shipping revenues, increased aid to developing countries, continued decreasing of the net revenues from tourism and increased payments of interest on foreign debts.

If public consumption, which has a low import content, is emphasized, it will not be necessary to transfer such large amounts of resources to industry. Therefore, when the necessity of transferring resources to the export industry or to the import-competing industries in order to achieve equilibrium in the balance on current accounts is spoken of in the public discussion of economic policy, it is implied that no such slight increase in private consumption as in alternative P is to be expected.

Foreign exchange policy and the rate of inflation

IESR's Long-Term Appraisal is based on the concept that equilibrium is to be obtained on the current account in 1980 as in the 1975 Report from the Long-Term Planning Commission. In the Long-Term Planning Commission's Report a sensitivity computation shows that if the nominal price of petroleum remains unchanged, the estimates for the necessary increases in the balance of trade will be reduced by two thirds.

IESR has assumed that the rate of exchange will be unchanged up to 1980. This may seem to

8 In his article "How Much Should We Borrow Abroad?" in the preceding number of this review, Sven Grasman wrote that the Long-Term Planning Commission has considered that large quantities of real resources must be directed into the export industries is, on the one hand, that they have considered the krona to have been overvalued in 1974 and, on the other, that they have assumed that the rate of exchange will be unchanged during the coming five years.

This and similar formulations from other directions in the public discussion may easily lead to a misunderstanding about the nature of the computations on which
be unrealistic in a situation with floating exchange rates. However, between 1970 and 1975 there was no significant change in the rate of the Swedish krona relative to the currencies of Sweden’s fourteen most important trading partners when the changes in rates are weighted according to their shares of the Swedish foreign trade. Even within the framework of a constant weighted rate of exchange there have been, and will in all probability continue to be, large changes in the rates of exchange of the various currency relative to each other. Thus the West German mark has appreciated by about 20% during the past five-year period if West Germany succeeds in restraining its development of costs as also, in the future, our assumption of constant exchange rates includes the expectation of a continued depreciation of the Swedish krona relative to the West German mark. Actually, this implies that Sweden will not follow along with the German appreciation.

Further, we have assumed that the international price increases for goods and services traded by Sweden will on the average be 6% per annum between 1974 and 1980. Thus the GNP price indexes in other currencies are assumed to rise more rapidly. According to the so-called EFO model such an international rate of inflation should be compared with a constant exchange rate, mean that the domestic rate of inflation would be about 7.5% per annum on the average during the period 1974–80.

Such a high rate of inflation gives rise to a number of serious problems. Therefore, it would be desirable if Sweden were to succeed in a policy of revaluation which would involve maintaining a constant rate of exchange between the krona and the West German mark. We have not judged it probable that such an economic policy would be successful. However, strong resistance would doubtless be encountered if Sweden herself were to initiate devaluations which decreased the value of the krona relative to the average of other currencies. This is a most dubious method for improving the competitive position. The risk of falling into a wage and price spiral, which after a time is more likely to worsen the situation, is obvious. Repeated devaluations of the Swedish krona would also reduce the cost pressure on the firms which might lead to a slower development of productivity.

The Swedish level of costs has become sharply worse during recent years. Between 1974 and 1976 the relative change in wage costs per unit of production is estimated to be about 25% to Sweden’s disadvantage as compared to Western Germany, and this does not only depend upon the more rapid increase in wages but also upon the low rate of growth of productivity in Sweden in particular during 1975 and 1976. It would not seem realistic to follow the West German mark, thereby revaluing the krona relative to the average of other currencies, from such an initial situation. However, a situation favouring such a policy existed in the beginning of 1973 at which time Sweden had been improving its relative costs compared to Western Germany for several years. By restraining cost developments during the coming years it should be possible once again to create a favourable situation for an active price stabilization policy with successive revaluations by the end of the 1970’s. This is one argument for attempting to achieve equilibrium on the current account by 1980. If a policy of appreciation — implying following the West German mark — is to succeed and in order to convince the rest of the world, Sweden must first demonstrate an ability to limit rises in costs sufficiently to lead to a surplus in foreign trade, which will then make it possible to revalue its currency.

Scope for wages increases
A rapid expansion of the public sector means that the scope for increasing real wages will be substantially limited. For alternative P we have estimated that it is barely a per cent annually. The greater part of the 2% annual increase in consumption, which we have estimated for this alternative, is the result of substantially increased transfers.

We have computed the total scope for wages increases, and here we mean gross wages including employers’ contributions and social security charges, as the sum of productivity increases and international inflation, which is 11.6% for alternative P. If the government compensates itself for the nominal downward adjustment of the scale of taxation rates by means of increased employers’ contributions, the margin for increases in wages will be limited. The wage-earners organizations will find it difficult to accept this. Apparently there is a risk that wages increases will far exceed the available scope.

In the industry-expansive alternative there is scope for real wages to increase by 2.5% annually. The government can be satisfied with a downward adjustment of the scale of taxation rates without increasing employers’ contributions. This should simplify wage agreements. The public-expansive alternative, on the other hand, will probably result in greater upward pressure on wages and make it difficult to follow an exchange-rate policy which ties the krona to the West German mark. The conditions for a successful price stabilization policy are thus dependent on which alternative is chosen.

The very large wage increases which occurred between 1974 and 1976 in Sweden were determined by the scope which developed as a result of the high international rate of inflation between 1973 and 1974. Then, when the international inflation abated, the Swedish cost level rapidly rose above that of Western Germany, especially. As long as the international rate of inflation was high and even increasing and the development of productivity more or less followed the earlier trend, it was reasonable and perhaps even advantageous for stabilization policy to determine the development of wages with reference to the international rate of inflation and the development of productivity during the preceding period of wage agreements. Difficulties in limiting the rate of increases in wages compared to Western Germany becomes greater when the rate of inflation abroad slows down and the previous trend in productivity is broken.

Considerable uncertainty exists about future international inflation. In the Report of the Long-Term Planning Commission for 1975 it is assumed that it will be 3% annually, and we believe it will be twice this figure. The large degree of uncertainty about the future rate of inflation and the wide variations about a high level tender wage negotiations, make it difficult. It is therefore important to combine moderate wage settlements with some form of guarantees that wage earners will be compensated if consumer prices or productivity should develop differently from what has been assumed.

The development of productivity
Table 3 shows the development of production and productivity in Swedish industry since 1950 as computed by IESR and the estimates which have been made for the period 1974–1980. The annual rate of growth of both labour productivity and total productivity is indicated in the table. Total productivity, sometimes called the technical or residual factor, is obtained by measuring how much production per weighted unit of labour and capital increases annually.
The rate of increase of total productivity indicates how much production costs per unit produced would have decreased if the prices of labour and capital services had remained constant. In general it is assumed that the capital used per unit produced is constant. The increase in labour productivity shows the scope for wage increases provided the yield on capital is unchanged. If the use of capital increases, companies will have to pay for a part of the increased labour productivity in the form of increased capital costs. Therefore, the scope for wage increases will be less than indicated by the increase in labour productivity.

IESR has assumed that the rate of growth of the productivity of labour will slacken. IESR's estimate is from half to one percentage point below that of the 1975 Report of the Long-Planning Commission. The reason for this assumption is discussed in the following. The decreasing rate of growth of productivity may, to some degree, be a result of a decrease in the flow of economically useful, new technology. This flow is, however, largely internationally determined. We have not assumed that the potential of unutilized new technology that is fully applicable should be less today than during the 1960's. There is no information concerning this. The possibility of increasing returns to scale can, however, be expected to be less in certain industries, e.g. forestry.

The decreasing productivity of capital

According to IESR's calculations the amount of capital used per unit of production, which was constant or even decreasing during the 1960's, increased during the first half of the 1970's. This may be owing to investments for protection of the environment. It may also be because the companies have continued to replace labour with capital at the same rate as before, which has resulted in decreasing yields on capital when the rate of technical development has decreased.

Technical development here must be understood broadly and must include improvements in production methods, the rate of development of new products, structural changes and increasing quality of labour inputs. The continued substitution of capital for labour may be connected with the fact that the price of capital services has decreased relative to the price of labour services owing among other factors to the abundant availability of low-cost financing to industry.

Changes in working life, e.g. new wage forms, job-security, legislation, increased absenteeism, etc., seem to have influenced the costs for labour more than is reflected in gross hourly wages. Some companies calculate with a considerably greater price of labour in their investment calculations than that which corresponds to gross wages. This speeds up the substitution of capital for labour.

Lower rate of structural change

Improvements in methods of production often necessitate investments in new plants and machinery. The rate at which new, highly productive plants, which almost always have considerably increased capacity, are constructed and older production units are retired determines the development of productivity to a great degree in large portions of industry, especially in the processing industries. The resistance to closing down unprofitable companies and production units during the 1970's, however, has meant even stricter requirements than earlier that companies which close down an activity must locate a replacement industry before closing down. Therefore, companies tend to delay closing down, which leads to generally lower increases in productivity. When industrial growth is more rapid, though, it will be easier to find alternative industries or alternative lines of production within the same group of companies. These investments may also be selected from a greater variety of choices in the more expansive alternative, which probably results in greater productivity. This is the reason why we believe that a higher rate of growth in industry leads to a greater increase in productivity. A large portion of Swedish industry is located in relatively small communities which are dominated by one or a few companies. Therefore, the connection between expansion and closing down which we have pointed out is of great importance for the development of productivity.

During the 1960's a high degree of structural change was considered acceptable. It was up to labour market policies to take care of the unemployment which resulted from shutdowns. The attitude towards a rapid structural change has been changed during the 1970's.

There are several reasons for investing in rapid renewal of the structure of capital. Older plants are responsible for the major portion of the environmental pollution and for the unsatisfactory internal working environment, and at the same time they use more energy per unit of production. In the study it is shown that a policy which had emphasized a more rapid structural change would have resulted in equally great improvements in environment in existing plants. There is no conflict between the desire to improve the external and internal environments and the desire for rapid increases in productivity; on the other hand, rapid structural change may create employment problems in individual communities.

If there is continued slowdown in the rate of structural change, it will primarily be the result of increased resistance to shutdowns and of the methods of directing investments in the protection of the environment and in the expansion of industry. The technical and economical potential for increasing productivity is, however, the same as in earlier periods according to our estimates.

Growth in productivity is, therefore, to some extent a question of which labour market policy and industrial policy the government will pursue.

Product renewal and Intangible Investments

In the public discussions the growth of productivity is often equated with rationalization, the elimination of old plants and the construction of new plants. Rationalization is sometimes viewed negatively by labour. However, a large portion of the growth of productivity stems from the development of new products and from the successive improvement of old products. A condition for this type of growth in productivity, however, is that the companies quickly market the new products and are able to obtain a higher price for them, which in turn means that they must be ahead of their competitors. The speed with which the companies get their new products on to the market is thus a deciding factor for the growth of productivity. Intangible investments in the development of new products and in developing new markets weigh very heavily in large parts of the Swedish industry. Since the growth of productivity is responsible for the major part of the growth of industrial capacity, it may be misleading to stress the necessity of a high rate of real investment too much.

The reforms in the organization of working life, job security legislation, workers' participation in...
management at all levels, negotiations and all forms of changes in production, etc., which are currently being carried out contain the risk that the rate of change and thereby the rate of growth of productivity will decrease. If the power of innovation and the ability to keep at least abreast of the competition technically should diminish, it would be difficult to compensate for the resulting decrease in labour productivity with large inputs of capital or maintain the growth of labour productivity. However, we have, to a certain degree, counted on policies directed towards the stimulation of large investments. This is one reason why we do not believe there will be too drastic a decrease in labour productivity. On the other hand, total productivity falls considerably, especially in alternative P.

"Productivity policy"

Different views prevail as to how large the rate of growth of productivity will be. Industry and commerce have expressed strong concern that there will be a considerable decrease in the growth of productivity as a result of the increased resistance to structural change, of the altered rules for working life and so forth. Wage-earner representatives have seen more optimistically on the growth of productivity.

Obviously, behind these positions lie different views as to the consequences to the growth of productivity of economic policy, work legislation, changed wage norms, tax policies and much else, or in a single word, effective in different economic systems. Actually in a long-term appraisal the assumptions about economic policy, a broad sense under which a given development of productivity can be expected should be specified. However, it is extremely difficult to provide empirical support for the significance of all of the factors which determine the development of productivity. For example, some observations would seem to indicate that there is a negative relationship between a heavy tax burden and far-reaching equalization of incomes on the one hand and the growth of productivity on the other. In the absence of empirically supported knowledge this becomes more of a matter of political conviction. If there had been such knowledge available, it would have been interesting to study various alternative paths of development for the economy for various patterns of economic policy in all respects which are important for the development of productivity. This would have required that it be possible to indicate the "productivity policy" which needs to be followed in the same way as IIESR in its Long-Term Appraisal has indicated the taxation policy required to finance the public sector and achieve balance in the economy. The difficulties of indicating such a policy in detail has meant that IIESR has not specified any such alternative in its Long-Term Appraisal, but has only indicated the consequences of various assumptions about productivity.

Problems for economic policy

We have discussed three different ways to strengthen industry's competitive position to achieve equilibrium on the current account, evaluation, wages and tax agreements and measures to increase the growth of productivity. Devaluation seems to be a most promising way to increase competitive strength. A policy of evaluation is unrealistic in the present situation, as has been emphasized above. Instead, policies must be directed towards a wages and tax agreement which limits rises in costs. Owing to the great degree of uncertainty about the future rate of inflation and to the pronounced variations of the rate of inflation around a high level, income guarantees will certainly be prerequisite for such agreements. Finally, we would like to stress the importance of following a policy which maintains a high rate of growth of productivity.

The conditions for moderating the development of costs would seem to be somewhat different in the two main alternatives. A rapid expansion of public consumption does not place such great requirements on the industrial sector. The decrease of level of employment in industry is compensated for by the increased level of employment in the public sector. The increase in exports necessary to achieve external equilibrium will be less. Companies will be forced to increase their exports to compensate for weak developments in the domestic market. Such a policy can probably be accomplished at a higher level of costs within the country than for the expansive alternative at a given rate of exchange between the Swedish krona and other currencies. The moderate rate of investment also implied by this alternative means that the requirements for profitability in industry can be limited. It should be possible to achieve an unchanged degree of self-financing at a higher wage share than for 1974. As stated above, there is also a great deal which would indicate a more rapid increase in the costs of labour in this alternative.

In the industry-expansive alternative greater scope for contractual wage increases can be arranged so wage increases may be kept within reasonable limits more easily. Profits, however, must be maintained at a considerably higher level for the large industrial investments to be realized. In the alternative exports must increase very rapidly up to 1980. Swedish industry must be able to increase its shares of the world market by sufficient restraint in the development of costs. According to these estimates, the public-expansive alternative results in a somewhat higher domestic rate of inflation than does the industry-expansive alternative. On the other hand, it should be an easier way to achieve external balance, since the requirements for the transfer of resources to industry are so much less. In the discussion about the allocation of resources between public and private consumption in IIESR's Long-Term Appraisal it is presumed that a certain long-run allocation has been set up as a target for economic policy and that this target can be achieved with the aid of a suitable set of stabilization policy measures in every phase of the business cycle during the five-year period. However, this rational way of looking at the problem is probably not a very realistic description of how the allocation of resources actually takes place. Therefore the employment and external balance receive priority treatment, while price stabilization, resource allocation and economic growth are put in second place.

A successful slowing down of the development of domestic costs and a favourable development of foreign trade would probably make it less likely that economic policies which tend to dampen private consumption with a high import content would be adopted. If, on the other hand, wage increases are large, the result will be employment problems in industry and a current account deficit. This is because it must be assumed that evaluation of the krona will be avoided as long as possible, since it is a highly dubious method of strengthening competitiveness. In such a situation the policies adopted instead would probably be directed towards increased public employment, slowing down the growth of private consumption and a number of selective measures intended to strengthen investment and employment in industry. Wage and tax increases in industry will be directed towards increased public consumption can partly be seen as a means of stabilizing policy rather than a target. A great degree of restraint on the part of industry in increasing wages in the coming years would, according to this, not only be able to dampen the rate of inflation — perhaps a goal that not all companies consider to be of top
priority — but also influence the allocation of resources and economic policy.

Finally, there are also reasons to underline the fundamental importance of the assumption about the development of productivity for the possibilities of realizing the various alternatives. If productivity in industry develops considerably more slowly, considerable restraint in both public and private consumption will be necessary. There is much which indicates that it would be impossible to achieve equilibrium on the current account by 1980 in such a situation.