

COMMUNISM AND THE IMPORTATION OF ADVANCED TECHNOLOGY: THE CASE OF POLAND

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The common assumption that a transfer of technology will raise the standard of living is based on the fact that by and large the countries with more advanced technology are also the richest while those countries with the least advanced are the poorest. The connection between the level of technology and the standard of living holds in so far as other conditions are equal. The first of these is the relationship of population to natural resources; the second is the evenness of the levels in different fields of production and distribution. In any case, this connection holds between enduring levels in both spheres. In contrast, some of the attempted transfers of technology resemble an unsuccessful transplantation of a tissue which is rejected by the body. In the recent history of the tropical countries we can find many examples of harm caused by an importation of machinery and methods which were very advanced technically but inappropriate for the economy. The interest in intermediate technology sprang from the realisation that technology ought to be adapted not only to the geographical but also to the social environment.

THE CASE OF POLAND

The ill-effects of the transfer of technology which took place in Poland during the 1970's are of special interest because they cannot be explained by a shortage of technical skills — the factor commonly involved in tropical countries. Quite the contrary: like other countries of the Soviet Bloc, Poland has an over-abundance not only of highly qualified scientists and engineers, but also of middle level technicians, many of whom are employed in jobs where their knowledge is completely wasted. The factor of local incompetence, which was involved in making the imported technology and machinery useless or even

harmful, lay entirely in the fields of policy decisions, organisation and management.

When he took over the reins at the beginning of 1970, Gierek and his team conceived a plan which, they hoped, would enable them to get out of the situation where the only method of dealing with the workers' demands for an improvement in their condition was to send in the police. Whether or not it was due to his upbringing in liberal Belgium or the lack of Soviet training, it is to Gierek's credit that he was unwilling to resort to shootings and mass jailings.

His recipe for the great leap forward was to take massive loans from the West, to build up a large and ultra-modern industry, the products of which would be exported to repay the loans, while leaving enough for internal distribution to permit a substantial raising of the standard of living. No doubt the unforeseen arrival of a world-wide recession greatly aggravated the effects of the failure but the plan was bound to fail even without the recession because it was based on a gross over-estimation of the ability of the rigidly bureaucratised industry and trade to compete on the international markets. Furthermore, the uncompetitiveness of Polish industry was aggravated by the liberal streak in Gierek's rule. An industry tightly controlled by an overweight bureaucracy may be able to sell some of its products on the world markets only if it can rely on cheap labour. By his laudable reluctance to use the police to keep the workers docile and the wages low, Gierek was discarding the only advantage which a communist industry has in competing with the 'capitalist exploiters' obliged to put up with powerful unions and the welfarism of elected governments.

The case of Romania, however, shows that Gierek's plan would have failed even if he were as effective as Mr Ceausescu in keeping the workers down, because the all-pervading red tape would be enough to make Polish industry uncompetitive on the international markets. In any case, the planned technical advantage would have diminished the advantage of low wages, which lose their importance as an industry becomes more capital intensive. Moreover, red tape cripples marketing even more effectively than production: even machines which are a good bargain in themselves remain unsold because the potential buyers know that spare parts might be unobtainable or obtained only after long delays and tedious and ludicrous formalities. The deterioration resulting from the failure of the plan was felt more acutely by the public because of the temporary rise in the standard of living achieved by subsidising consumption with money borrowed from foreigners.

WHERE THE BURDEN FELL

Since the borrowed money was invested in industries unable to repay it by their exports, the burden of repaying had to fall on the old extractive industries — above all, coal mining. Consequently, the proceeds from their exports were no longer avail-

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able for buying goods which previously used to be imported whether for consumption or as materials for industry and agriculture. In this situation, an economic deterioration could have been avoided only if the new industries had been able to supply enough goods for the domestic needs to replace the imports. As it turned out, not only were they not able to do this, but they could not even produce the same amount of goods for domestic consumption as the old factories which they had replaced. The reason for this was that the new factories or machines needed foreign spare parts and materials which could not be bought because of the lack of foreign currency. Consequently, the new factories (or even the old ones which had some newly imported machinery) could operate only at a fraction of their capacity or not at all. What made matters even worse was that many investments were so misconceived that they resulted not only in sheer waste but also in definite destruction of productive capacity entailed in the replacement of more rudimentary factories and machines which did work by the more sophisticated which did not. The latter's dependence on unobtainable foreign materials was not the only cause. Factories were built to produce goods for which there was no use, in places where there was no housing for the workers or no roads to bring in the raw materials.

THE IDIOCIES OF PLANNING

Of the many examples of this kind of thing, let me illustrate the point with just one which is truly laughable. Thinking big, the planners decided to replace several rather small and old-fashioned milk-processing plants by one much larger and more modern establishment built in the centre of a region. Unfortunately, they did not take into account the fact that the condition of the roads and the vehicles was not good enough for transporting the milk over much longer distances: most of the milk turned into semi-butter before reaching its destination. The old plants had been dismantled before the news reached the ministry that the new one could not function.

No mistakes of this degree of absurdity could be made in a private firm working for profit. Our example is merely a particularly picturesque demonstration of the impossibility of economic calculation in a situation where the prices are fixed arbitrarily and goods allocated regardless of the demand. However, since this problem has been extensively discussed in the large literature on this subject, I shall only comment on the consequences of the absence of economic calculation which go beyond the sphere of economics in the narrow sense. The first point is that the freedom from the discipline of the market opens the door to the disregard of professional skills and the standards of conduct in the selection of managers and planners, which comes under the sway of political and personal favouritism. In a private firm, which must face competition to survive, preference may be given to the relatives or friends of the shareholders or directors, but only so long as these can manage it competently. Even firms owned by one family (or even one individual) are often handed over to more skilful managers recruited from outside to avoid going into liquidation. Without the pressure to make the profit and without the threat of bankruptcy, there are no barriers to favouritism in appointments and promotions at all levels. A vicious circle comes into existence since an incompetent man at the top will be inclined to surround himself with even less competent underlings who will bar the entry to anyone who might show them up.

But does not the need to fulfil the plan put a certain premium on managerial competence? It is true that this requirement excludes madmen, mental defectives and complete idlers from influential positions: there are no equivalents of idiot kings or lunatic millionaires in the communist system. Nonetheless, non-fulfilment of the plan does not mean that the establishment must close: the targets might be adjusted downwards, excuses

may be found or influential friends might protect the unsuccessful manager's or planner's job. As in an army, the crucial factors are discipline and the ability of the leader at the very top. It seems that this type of economy functions best when a clever and ruthless despot is in complete control, and makes sure that punishment for non-fulfilment of the orders is sure, drastic and swift. Even in the USSR — which never ceased to be totalitarian and disciplinarian — the end of personal despotism and terror, accompanied by the growth of security under the law, created the ground for entrenchment of cliques and increased the inertia of the bureaucratic machine, while the disappearance of all-pervading fear removed an important obstacle to the spread of corruption. In Poland the trend towards a dispersion of power and slacker party discipline went very much further than in the USSR. One result of this was that the workers dared to protest and eventually set up an independent trade union. A less known consequence was that the apparatchiks, no longer fearing a whack from the boss, were able to relax and give vent to their proclivities towards luxury, laziness, favouritism, nepotism, bribery and embezzlement. The snow-balling effect of disorder constituted an important aggravating factor because the greater the disorder in other parts of the economic machine the more difficult it is to pin the responsibility for non-fulfilment of the plan on any single individual or group, as it may be an objective fact that they were unable to do so because the material scheduled by the plan did not arrive. In turn, the growing difficulty of apportioning responsibility for failures facilitates further spread of slackness, disorder and favouritism.

THE IDEOLOGICAL FUNCTION OF MARXISM

Although it was not an important factor because nobody in Poland seriously believes in Marxism (which even the party stalwarts treat as the prescribed form of homage to the eastern overlords), it must be added that the doctrine blesses the waste. In another article ("Bureaucrats, Businessmen and Society", *Survey*, July 1982), I have tried to explain the appeal of Marxism to the diploma-holding classes in the west by showing that Marx's theory defines 'exploitation' in such a way that it puts all the blame on the capitalists while exonerating all those who live off the money taken from the workers as tax. Apart from precluding by definition the possibility that the ruling bureaucrats might be exploiting the workers, this theory has another use in the communist countries. As Poland's most outstanding economist, Stefan Kurowski (in prison when these words were written) has pointed out, Marx's theory of value gives the planners an absolution from all guilt by making it impossible by definition that they should cause waste. Since the value of a product, according to this theory, is determined by the amount of labour put into making it, everything that has been produced retains its value regardless of whether anybody wants it or makes use of it. So, a factory which is standing idle has the same value as one which is working at full capacity. It might even have more value if more labour has been put into building it. So, there is no way in which labour could be wasted. It would be difficult to invent a better ideological camouflage for the planners' indolence and follies.

It is not surprising that under these circumstances the great leap forward landed Poland in a quagmire. It is true that, though morally justified, the turbulence of the workers aggravated the situation. Nonetheless, the incompetence of the policy makers sufficed to dislocate the economy. One wonders how the supposedly hard-headed bankers could be willing to lend money to such a dubious crowd.

Whatever is the explanation, the fact remains that the loans from the West made a crucial contribution to Poland's economic collapse by furnishing the communist rulers with the means to set in motion their ignorant and megalomaniac schemes of grandiose modernisation.