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# Britain's Coal Problem

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EVER since the last war the central problem of the British coal-mining industry has been its comparatively low productivity in terms of the value and the volume of output per miner. This has been the cause of most of its troubles before and during the war and, unless remedied, it will continue to give rise to difficulties after the war.

## 1.

Before the war, the low productivity of many other British industries has meant low wages—that is wages below the national average—and, hence, recurring friction between workers and employers. In no other British industry have labour relations during the inter-war period been as unsatisfactory as in coal-mining. Further, the industry's low productivity in relation to the coal-mining industries of other countries has also brought export difficulties, in spite of the high quality of British coal.

In 1937, the productivity of the British coal-mining industry, measured by the volume of output per worker employed, was only about a third of that of the industry in the United States. Hence, at a price that enabled the industry in the United States to pay high wages compared with British standards, the industry in Britain had to jog along with low wages and, generally, with low profits. How is it that the British coal-mining industry, the basis of Britain's industrialisation and prosperity in the past, has fallen behind other British industries in its capacity to pay wages and behind the coal-mining industries of other countries in its output per worker?

There has been a tendency to explain the disparity between productivity in Great Britain and other countries mainly in terms of geology. In the United States, for example, coal deposits are generally

nearer the surface than in Britain; the seams are thicker and can be worked more easily; and many of the best seams in Britain have been worked out or are nearing exhaustion. Geology, certainly, accounts for much of the difference in output per head. Fortunately for the future of Britain it does not account for anything like all the difference; if it did Britain, being short of water-power resources, would have to resign itself to a future of dear fuel and power.

Even if full allowance is made for geological factors, productivity before the war was nothing like as high as it might have been. The second reason for the comparatively low productivity is the failure of the industry—of employers and trade unions—to diagnose the problem and to apply speedily and to the full the remedies put into its hands by modern science and technique. In the view of many experts, productivity could have been raised appreciably during the inter-war years by a thoroughgoing technical reorganisation, that is by making each coalfield the unit of exploitation—instead of continuing the system of a multiplicity of independent and often small units of exploitation—and by the largest possible measure of mechanisation. In other words, the speed of technical progress between the two wars was not commensurate with technical possibilities.

In a memorandum entitled a National Policy for Coal, published in March, 1944, the Tory Reform Committee ascribes the slow pace of technical progress to historical factors.

“The structure of the industry (to quote from the statement) at the end of the last war, which was the product of historical accident, was ill-designed to enable the industry to meet changed circumstances. Many existing collieries date back many years and according to modern standards are badly planned. This is partly due to the age of the coal-fields, and in greater degree to the exis-

tence of too many small-scale units of production."

The structure and organisation of the industry, evolved during the nineteenth century, was indeed ill-designed for the adoption of the most efficient methods of exploitation. But this, in itself, is no explanation of its failure to keep in line with technical progress through drastic reorganisation. True, an old-established industry, like British coal-mining, often tries to solve its technical problems by tinkering rather than by a complete overhaul; but if nothing but a complete overhaul will solve its problems, the time that can be bought by tinkering is limited.

Many independent observers have long realised that the industry's salvation could only be achieved through technical reorganisation. But resistance to change was dogged and powerful, on the part of the multiplicity of independent coal-owners and also on the part of the trade unions. The spirit of independence among coal-owners was strong. Drastic reorganisation would have meant the elimination of many of them; perhaps they did not appreciate sufficiently that resistance to change meant low profits and wages or dear coal. The Coal Mines Act of 1930 provided for the concentration of production by financial amalgamation; the Coal Mines Reorganisation Commission set up by the Act had to report the industry's unwillingness to carry out this policy. The miners, perhaps unconscious of the inconsistency, wanted to combine high wages with a high level of employment; they were suspicious of technical reorganisation because, by definition, a substantial increase in productivity would have meant still fewer jobs during a period when unemployment among miners was already high and when the prospect of alternative employment often seemed poor. To cap it all there was an atmosphere of mutual distrust between workers and owners, a lack of appreciation of their identity of interest, that is of the fact that higher productivity is the key to both higher wages and good profits.

Admittedly, technical progress in the industry did not stand still between the

two wars. It was probably more rapid than during the preceding twenty years. For example, the proportion of the total output of coal cut mechanically rose from 13 per cent. in 1920 to 59 per cent in 1938; during the same period the horsepower of electric motors in use below ground increased from 618,763 to 1,198,261; again, the number of mines worked was reduced from 2,838, to 2,125. As a result there was a gradual improvement in productivity. But it was too slow to enable the industry to raise its wages to the level of the national average or to earn good profits at prevailing prices. And it was much slower than in other European coal-producing countries. According to the memorandum of the Tory Reform Committee,

"in the twenty years before the war, Germany, Poland and Holland achieved a continuous and rapid improvement in output per manshift of between 50 and 100 per cent, compared with only 15 per cent in this country (Great Britain) British output per manshift was only 60-70 per cent. of that in these three countries.

During the 1930'ties, an attempt was made to secure better wages and profits by means of price control. The Coal Mines Act of 1930 gave the industry power to control production and prices, that is to say it replaced competition by a monopoly controlled largely by the coal owners. The Act provides that

There shall be a scheme regulating the production, supply and sale of coal by owners of coal mines situated in Great Britain, which shall, subject to the provisions of the scheme, be administered by a body referred to in this Act as the Central Council; and, subject to the provisions of this Act, there shall be for every district a scheme regulating the production, supply and sale of coal by owners of coal mines situated in the district, which shall, subject to the provisions of the scheme, be administered by a body referred to in this Act as an Executive Board."

It was laid down that, among other things,

"every district scheme shall provide for the determination, at such times and for such periods as may be decided in accordance with the provisions of the scheme, of the price

below which every class of coal produced in the district may not be sold or supplied by owners of coal mines in the district."

True, there were safeguards. The schemes for regulating production and for fixing minimum prices had to be approved by the Board of Trade, that is the Government department responsible for the industry before the creation of the Ministry of Fuel and Power. Further, the Act provided for the creation of a national and of district committees for the purpose of investigating complaints about the operation of the control schemes. These committees, which were to be appointed by the Board of Trade, were to represent consumers and miners, as well as coal owners. Finally, the Act also provided for the reorganisation of the industry as a means to improving its productivity; A Coal Mines Reorganisation Commission was set up by the Board of Trade,

"to further the reorganisation of the coal mining industry with a view to facilitating the production supply and sale of coal by owners of coal mines, and for that purpose to promote and assist, by the preparation of schemes and otherwise, the amalgamation of undertakings consisting of or comprising coal mines where such amalgamations appear to the Commission to be in the national interest."

But events showed that the granting of monopoly powers led to a rise in prices. In 1937, the average pit-head price of coal was 12 per cent higher than in 1930. In other words, the improvement in wages and profits after the passing of the Act were secured largely at the expense of the consumer; it was not achieved by an improvement in productivity. The safeguards provided by the Act of 1930 did not achieve their aim.

The rise in coal prices had little immediate effect on home consumption, though it probably contributed to the speeding-up in research designed to improve the utilisation of coal, that is to make each ton of coal go further than before. In a year of high business activity, such as 1937, home consumption was almost as high as before World War I; it was 182 million tons in 1937, against 184 millions

in 1913. Britain's consumption of power, of course, was appreciably higher in 1937 than in 1913; this has been achieved without a corresponding increase in coal consumption by economies in its utilisation.

To lever up coal prices in a controlled home market is one thing; to raise them without loss of trade on a highly competitive export market is another matter. In 1929, world trade in coal, at 174 million tons, was almost of the same volume as in 1913. Great Britain's share of the total had fallen from 55.0 to 44.3 per cent during this period. Nevertheless, it still amounted to 77 million tons, equivalent to about 30 per cent of Britain's output of coal. The loss of this trade, clearly, could not be faced with equanimity; it would have meant heavy unemployment in the coal-mining industry and a serious loss of foreign exchange.

As a means of combining remunerative prices with the maintenance of exports, the British Government concluded a series of trade agreements with coal-importing countries and sponsored a move towards the formation of an international coal cartel. Trade agreements were concluded with a large number of countries, including Denmark, Norway, Sweden, Finland, Iceland, Latvia, Lithuania, Estonia, Argentina, Uruguay, Italy and Germany; they were designed to ensure a market for British Coal. Negotiations for an international coal cartel led to an agreement between the industries in Britain and Poland; in January, 1939, the Central Council of Colliery Owners in Britain reported "a settlement of all points of difference between the United Kingdom and German coal industries", but the war intervened before an international cartel agreement could be concluded.

The trade agreements with importing countries and the agreement with Poland—an important exporting country—undoubtedly assisted the British coal industry in marketing coal at higher prices; but they did not prevent an appreciable fall in exports from 77 million tons in 1929 to 52 million tons in 1937 and a

decline in Britain's share in world exports from 44.3 per cent to 36.6 per cent.

In sum, the experience of the 1930'ties has demonstrated that mere price control provides no solution to the British coal problem; it is no substitute for an increase in productivity. If anything, the experiment has delayed the necessary process of technical reorganisation. This was recognised, to some extent, in the Coal Act of 1938. Although this Act provided for the continuation of production and price control, it also strengthened the powers of the Coal Mines Reorganisation Commission (now the Coal Commission) set up by the Act of 1930 to secure the reorganisation of the industry by way of amalgamation, and it provided for the state purchase of Great Britain's coal deposits. The Coal Commission has not hitherto exercised its new powers to secure amalgamations, but the deposits have already been acquired by it on behalf of the State. The purchase of the deposits by the State does not affect the position of the coal-mining companies; they will continue to pay royalties to the landlord for the right of exploiting them; the only difference is that the landlord is now the State.

## II.

The absence of the modernisation of the coal industry is the root cause of most of the difficulties experienced during the war. It entered the war with a comparatively low productivity and, in spite of the improvement in the 'thirties, with comparatively low wages and mutual distrust between miners and colliery owners.

Owing to its low productivity, the industry has made a heavy demand on Britain's manpower at a time when this was scarce. During the interwar period, the industry's labour force gradually adjusted itself to the demand and, at the outbreak of war there was no large reserve of idle miners. Inevitably as many miners as it was thought possible the industry could spare were called up. As events have shown, the number of miners needed to meet the demand for coal was underestimated early in the war; this is partly due, no doubt, to the progressive decline in productivity since 1939. The industry's wartime experience is reflected in the following facts of employment, output and output per miner released for publication by the Ministry of Fuel and Power in a White Paper (Cnd. 6538).

### Employment and Output—Deep Coal

	Average No. of Wage- earners on Colliery Books	Total Output of Saleable Coal	Output per Wage-earner per annum
		Tons	Tons
1939	766,300	231,337,900	301.9
1940	749,200	224,298,800	299.4
1941	697,600	206,344,300	295.8
1942	709,300	203,633,400	287.1
1943	707,800	194,493,000	274.8

In addition, 1,308, 200 tons of coal were produced by opencast workings in 1942 and 4,426,700 tons in 1943.

In spite of the creation of an elaborate control organisation by the Ministry of Fuel and Power, there has been no attempt at a drastic technical overhaul of the industry during the war. The proportions of coal cut and conveyed mechanically rose from 61 and 58 per cent in 1939 to

69 and 66 per cent, respectively, in 1943. But the quantity of coal cut by machinery actually declined from 142 million tons in 1939 to 134 million tons in 1943, and the quantity conveyed mechanically underground fell from 134 million tons to 129 million tons. Machinery imported from

the United States is expected to assist the industry in raising the output of "deep" coal by 12 million tons a year and in stepping-up the production of "open-cast" coal by 8-10 million tons.

The progressive reduction in the output of coal, fortunately, has not been serious enough to hamper British industry and transport or to deprive the population of heat in winter. Serious difficulties have been avoided, first, by the virtual cessation of exports and, secondly, by the introduction of drastic economies by industry, and private consumers have had to cut their consumption to the bone.

Inevitably, the shortage of labour and of coal gave the leaders of the miners an opportunity to press their long-standing claims to better wages and working conditions. Equally inevitably, the miners seized their opportunity vigorously and, in the atmosphere of distrust carried forward from peace to war, their demands, and, often, the manner of their presentation, caused a good deal of friction. The Government recognised the miners' claims for higher wages and better working conditions, and they gained successive improvements. For example, between 1938 and the last quarter of 1943, average weekly cash earnings rose by 84 per cent from £2.15.9 to £5.2.5. True, this increase in earnings is about the same as in other industries; but, in contrast to coal mining, more than half the increase in other industries is due, not to higher rates per hour, but to overtime at special rates and other wartime factors that will cease to operate in peace. Moreover, coal miners have gained further improvements in wages in 1944, and the higher wages have been guaranteed for a period of 4 years. If all industries return to pre-war working hours after the war at current rates of wages, the earnings of coal miners will be substantially higher in relation to those in other industries than before the war. In other words, coal miners have gained both absolutely and relatively to workers in other industries.

But the rise in the earnings of coal miners has not been accompanied by a corresponding increase in productivity.

On the contrary, productivity has actually shown a decline. Between 1939 and 1943, the output per miner per manshift worked fell by 9 per cent from 1.13 tons to 1.03 tons and the output per annum also fell by 9 per cent from 301.9 tons to 274.8 tons. As a result, labour costs per ton of coal disposable commercially rose by 86 per cent from 10/10 $\frac{3}{4}$  to 20/3. This rise was mainly responsible for the 69 per cent rise in the cost of coal per ton (exclusive of profits), from 16/3 $\frac{3}{4}$  in 1939 to 27/7 in 1943.

There has been no corresponding rise in the profits of colliery companies. Gross profits per ton, before allowing for interest on debentures, bank loans and amortisation averaged 1/4 $\frac{1}{2}$  per ton in 1943, against 1/7 $\frac{1}{2}$  in 1939.

In sum, the war has brought no increase in productivity, but it has brought a great increase in coal prices, due mainly to higher wages.

### III.

The rise in coal prices, marked though it has been, has done little damage during the war. The emphasis was on production. But after the war the price problem will again come to the fore; it will not only affect direct exports of coal but also the cost of production of industries, such as iron and steel, cement, chemicals and rail transport, in which coal forms a substantial proportion of total costs.

During the 'thirties, an attempt was made to improve wages and profits by price control at home and abroad. During the war, when price mattered little, wages were raised to a level which, socially, is undoubtedly justified and in 1944 minimum rates were guaranteed for a period of 4 years. But the real problem, the problem of productivity, has as yet hardly been tackled. Yet, if British industry is not to be handicapped by dear coal after the war—that is dear in relation to the price at which it is produced in other industrial countries—if Britain is to remain a large exporter of coal when the period of scarcity is over a few years after the war, and if the rise in wages is to be maintained and continued, the problem

of productivity must be tackled speedily and vigorously.

Fortunately, there is considerable scope for an increase in productivity, that is in the output per man-hour. A mission of technical experts and economists from the United States which examined British coal-mining methods in the spring of 1944 reported in August that of the current annual rate of "deep" coal production of 190 tons, some 40 million tons could be mechanised immediately with American type equipment and a large part of the remainder could be mechanised gradually after major changes in transport arrangements and in the methods of dealing with the difficulties of converting from complete long-wall operations to complete room-and-pillar systems of mining.

Fortunately also, the industry's real problem is now recognised more clearly by the miners, the colliery owners and the Government.

After the war, the miners may be more favourably disposed towards reorganisation—although this must mean less employment. At first, there will be a shortage rather than a surplus of labour; the intake of recruits is in any case likely to be smaller than the loss of labour through retirement, disablement and other causes; and, even if a surplus should arise later on, the Government's full employment policy, if successful, should make it easier than in the past for miners to find alternative employment.

Colliery owners, too, are now more alive to the need for a complete overhaul of the industry—and for speeding it up if they wish to avoid nationalisation. They will have to move fast, indeed, for nationalisation is being advocated increasingly as a means to ensure reorgan-

isation. There are many progressive colliery companies in Great Britain, wholeheartedly in favour of a drastic overhaul. For example, last February, Mr. N.B. Brooks, chairman of one of the biggest companies—the Bolsover Colliery—had this to say about the industry,

"it is an urgent necessity that its structure should be examined and re-designed where necessary to meet the demands that will be made upon it. To achieve this, past prejudice must be swept aside, and maximum efficiency with the minimum of delay must be the guiding principle. . . Our own opinion is that the number of undertakings must be substantially reduced . . . it is our hope that coal-owners as a body will publicly declare their acceptance of this principle, and their intention to apply it."

The Government, finally, is more aware than in the past of its responsibility for securing the modernisation of the industry as a means to raising its productivity and of the futility of tinkering with the problem by price control which is a drug but not a cure.

Nothing less than a united and sustained effort on the part of miners, colliery owners and the Government will raise the industry to the degree of efficiency of which it is capable with the assistance of modern techniques of exploitation. The cost of coal to the consumer depends, of course, not merely on production costs; improvements in distribution and utilisation are equally urgent, but they cannot be a substitute for a concerted drive to raise the productivity of the mining industry. The problem of productivity can be shirked no longer if Britain is to remain one of the world's great industrial power-houses.