

# An Analysis of Irish Transport Acts, 1944 and 1950, and of the financial and operating statistics of Coras Iompair Eireann and the Great Northern Railway Co., 1945-51

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In January, 1946, I read a paper before this Society, on the financial and operating statistics of the G.S. Rys. Co. and G.N.R. Co., 1938-44, which was preceded in May, 1938, by a similar survey of the G.S. Rys. Co. 1925-37, and also an analysis of the legislation affecting the Company during that period. The object of the present paper is to outline the chief provisions of the Irish Transport Acts, 1944 and 1950, and, in addition, a consideration of the financial and operating statistics of C.I.E. and of the G.N.R. Co. from 1945 to 1951.

The Irish Government made an order in February, 1942, under the Emergency Powers Act, reorganising the board of directors of the G.S. Rys. Co., by which a chairman with exceptional powers was appointed by the Government, and four directors were elected by the stockholders. With the experience thus gained of the new system of management, it was decided to introduce a Transport Bill, which became an Act in 1944. As a result, it was considered that adequate plans could be made for the reorganisation of public transport in the post-war period. In introducing the Bill, the Minister for Industry and Commerce stated the main principles on which the new transport organisation should be based: it should be able to procure easily and cheaply a sufficient amount of new capital; effective measures should be taken for the management to be conducted in accordance with public policy; and there should be a public authority to control charges for public transport.

*Transport Act, 1944.*—By this Act the two large public transport organisations operating entirely within the State, the G.S. Rys. Co. and Dublin United Transport Co., were amalgamated into a new company, Coras Iompair Eireann (C.I.E.). A system of directorial control similar to that prevailing in the G.S. Rys. Co. was established. The board of the Company was to consist of a chairman with special powers to be appointed by the Minister for Industry and Commerce, and a number of other directors to be elected by the stockholders. It was provided that no meeting of the board could be held in the absence of the chairman, and that no decision at the board could be reached without his approval, while the chairman alone would constitute a quorum at a board meeting. The Railway Tribunal, established by the Irish Railways Act, 1924, was abolished, and its powers were mainly transferred to the Minister for Industry and Commerce, and in some part to the High Court.

With a view to lessening the evasions and infringements of the Road Transport Act, 1933, a stricter interpretation was placed on the definition of carriage for reward by mechanically propelled vehicles, and heavier penalties could be imposed in the event of the violation of the Act. The annual payments of way leaves by C.I.E.

to the Dublin Corporation and Dún Laoghaire Borough Corporation were abolished, and by subsequent arrangement compensation was fixed for the payment by C.I.E. of £160,000 to the Dublin Corporation and £9,500 to Dún Laoghaire Borough Corporation.

For the purpose of effecting the amalgamation of the two companies, and inducing interested stockholders to agree to its terms, especially the acceptance of a lower rate of interest on their capital holdings, a new principle was introduced, that of a State guarantee of capital and interest, the latter to the extent of 3% per annum, on the newly created debenture stock. Transfers of the stocks of the two companies were made as follows: G.S. Rys. Co. each £100 4% debenture stock was to be converted into 3% State guaranteed debenture stock at par; each £100 4% Guaranteed preference stock into £50 State guaranteed debenture stock and £50 common stock; and each £100 4% preference stock and each £100 ordinary stock into an equivalent amount of common stock. Each £100 6% preference stock and each £100 ordinary stock of the D.U.T. Co. was to be converted into £145 3% State guaranteed debenture stock. It was provided that the substituted debenture stock should be redeemed at par in cash on 30th June, 1960. The provision imposing on the Company the liability to redeem its debenture stock within the brief space of fifteen years was much criticised. As a result of these transfers the initial capital of the new company was approximately £13.4 million, consisting of £9.9 million debenture stock and £3.5 million common stock. The maximum dividend on the latter stock was not to exceed 6%.

From its inception the financial position of C.I.E. deteriorated in each successive year. The chief reasons for the decline were: (1) The considerable increases in wages and salaries since the cancellation in September, 1946, of the stand-still order. The total salaries and wages bill for rail and road employees for 1948 and 1951 exceeded that of 1945, in which the total was £4.05 million, by £2.35 million and £3.91 million respectively, an increase of 58% and 97%. (2) The exceptionally heavy costs for locomotive fuel which showed an average increase per ton of 26/11d. in 1948, and of 72/7d. in 1951, on the 1945 figures, or an increase of 39% and 105% respectively. In addition, much higher prices had to be paid for materials and equipment for the running and maintenance of rail and bus services. (3) Many labour disputes which led to a suspension of the services affected, and provided an incentive for users to employ their own or alternative means of transport, with the consequent loss in traffic to the Company. (4) With the availability of adequate supplies of motor fuel and spare parts, licensed road hauliers, traders using their own motor lorries, a greatly increased number of private motor cars, which had been largely in abeyance during 1939-45, began to compete with the Company for the limited market for transport. The existence of this competition made it difficult, except in the bus services in Dublin, to pass on to users the burden of the increased costs arising from circumstances outside the Company's control. (5) Many exceptional difficulties incidental to particular years such as in 1947, when the very limited supplies of British coal forced the company to temporarily suspend most of its rail services, and necessitated a change-over to the use of oil instead of solid fuel for firing locomotives, and

later when oil became scarce, a reversion was made to coal, when it was available. (6) A very large part of the wasting rail and road assets taken over by the company in 1945 were long overdue for replacement, and as a result of the general shortage of materials there was a heavy accumulation of repair work. In a report submitted by the ex-Chairman of the company to the Minister for Industry and Commerce in March, 1948, it was stated that out of a total of 464 broad gauge locomotives, 326 or 10 out of every 14 were over 40 years of age, and 200 or 43% of these were beyond their economic life, that 879 passenger coaches out of an aggregate of 1259 or 10 out of every 14 should be replaced, and that 6,800 wagons or 57% out of a total stock of 11,900 should be considered obsolete. (7) A number of unprofitable branch lines, closed during the Emergency, were reopened.

In March, 1948, the ex-Chairman of the company pointed out to the Minister for Industry and Commerce that the company incurred a loss of over £800,000 for the year 1947, and he estimated that there would be a further loss of £1¼ million for 1948. He furnished a factual statement for consideration by the Government giving reasons why C.I.E. was not self-supporting, and the steps required to permanently remedy its position. He considered that the following measures were necessary: rehabilitation of the permanent way; the replacement of obsolete carriages and wagons, and the introduction of diesel electric locomotives; the closing of branch lines; and contributions from the profits of the omnibus department. He recommended an all-round increase of 10% on passenger fares and goods rates, which was refused by the Minister for Industry and Commerce pending the consideration by the Government of a report by Sir J. Milne and his assistants on the organisation and working of public transport in the country.

It would be impossible to enumerate within a short compass the many important details of the Milne Report, which should be read in conjunction with a memorandum by the ex-Chairman in February, 1949, commenting on its criticisms and recommendations. The Report made a detailed examination of the working of the various departments of C.I.E., criticised the policy of the board of directors on certain aspects of capital expenditure and favoured an increase in rail and road passenger fares. It recommended that the Grand Canal Co. should be acquired by C.I.E.; suggested a new basis of providing for depreciation; and that the authorised capital be increased by £4 million to £24 million, which with the balance of the unissued capital would mean that £7.1 million could be issued to finance the capital requirements of the company. It also recommended that the administration of the company should be vested in the board as a whole, which should be reconstituted with two additional Government directors.

*Transport Act, 1950*—The Government came to the conclusion that both private enterprise and the compromise between state ownership and private enterprise had failed to provide an efficient and economical system of public transport. Consequently, state ownership was decided upon, and the result was the Transport Act, 1950. The chief provisions of this Act were to amalgamate and bring C.I.E. (1945) and the Grand Canal Co. under public ownership, as C.I.E.

(1950) and to establish a new board of directors of not less than three or not more than seven members, appointed by the Government, to hold office for a period not exceeding five years. Actually, a whole-time chairman and six part-time directors were appointed for five years from 1st June, 1950. This board had full authority to determine passenger fares, goods rates and other charges, also the classification of merchandise to be carried on the railways. The Minister for Industry and Commerce was no longer empowered to issue an order for closing down branch lines as he could do under previous legislation. This authority was conferred on a new transport tribunal, appointed by the Government, who could do so after a public enquiry and other necessary conditions. The tribunal could also release the board from its statutory obligation to keep open for traffic any canal or part of a canal which had not been used for navigation purposes for at least three years.

Finance—the nominal amounts of the holdings in the State guaranteed debenture stock of C.I.E. (1945) were transferred into the same nominal amounts of guaranteed transport stock in the new company at the same rates of interest and redeemable in the same periods. The common stock of C.I.E. (1945) was exchanged on the basis of £80 3% guaranteed transport stock for each £100 of common stock held. The entire issued capital of the Grand Canal Co. £702,500 consisting of debentures, preference and ordinary shares, was converted into 3% guaranteed transport stock on a £ for £ basis. With the consent of the Minister for Industry and Commerce, and the approval of the Minister for Finance, the board may borrow money for permanent work not to exceed £7 million, by the issue of stock. Not more than £½ million may be temporarily borrowed from bankers, with the approval of the two Ministers. The board will be liable to repay the advance from state funds of £2.46 million made to C.I.E. (1945) for capital purposes, voted by the Dail, 30/11/49.

The G.N.R. Co. and the G.S. Rlys. Co. enjoyed for at least two years prior to 1945 an era of unprecedented prosperity, owing to circumstances arising out of the Emergency. The G.N.R. was able to take advantage of the extremely favourable conditions in the northern part of the system, resulting from the varied classes of war work and ancillary industries and the influx of armed forces and its ability to increase its engine mileage; the G.S. Rys. on the other hand, enjoyed to a very large extent a monopoly position from 1942 for the carriage of passengers and goods in a part of the country in which there was an increasing intensification of tillage and turf production and large quantities of money in the hands of traders, farmers, industrialists and the general public, but was hampered by limited and poor fuel supplies. For the year 1944 the G.N.R. Co. paid dividends of 4% on its guaranteed preference and preference stocks, and 2½% and a bonus of 1% on its ordinary stock. For the same year, the G.S. Rlys. Co. was able to pay 4% dividend on its guaranteed preference and preference stocks 3% on the ordinary stock, and carry forward a balance of £56,000 to the credit of C.I.E.; while the D.U.T. Co. paid 6% dividend on its preference and ordinary shares.

At the end of 1951, the financial position of the two companies was radically altered. C.I.E. had only paid dividends on its common

stock for the years 1945 and 1946, after which huge losses were sustained. The net losses of C.I.E. (1945 and 1950) from 1/1/47 to 31/3/52 amounted to £7.6 million. There was a liability at 31/3/52 of £.937 million for State advances including interest to meet the interest on its Transport Stocks etc., and of £2.462 million for capital expenditure. In addition, it had received, since 1949, £4.424 million for non-repayable grants from State funds, of which C.I.E. (1945) received £1.6m. and C.I.E. (1950) £2.8m. The position of the G.N.R. was somewhat less unfortunate: it had ceased to pay dividends on its ordinary and preference stocks after 1947, and on its guaranteed stocks after 1948. At the end of 1951 its Dr. balance, after the payment of fixed charges etc., was £972,000. In the annual report of the company for the year 1951, it was claimed that it had carried on its operations with its own resources, and did not call upon the Governments for financial support until mid-November of that year. This was mainly due to the fact that its investments of £1.97 million in Government securities at 31/12/44 were gradually realised and amounted to £.49 million at the end of 1951, a reduction of £1½ million.

The cessation of the war emergency conditions led to a serious decline in the financial position of the two companies, C.I.E. being affected earlier and to a larger extent than the G.N.R. as the following analysis of their net revenues will indicate:—

*Net Revenue Receipts (in £ thousands) of C.I.E. and G.N.R. Co. for 1945–51.*

C. I. E.

Year	Railway	Road Transport	Canal	Docks &c.	Hotels &c.	Other	Total
1945	239	899	Dr. 10	Dr. 8	9	38	1,167
1946	Dr. 413	818	Dr. 12	Dr. 9	31	68	483
1947	Dr. 972	478	Dr. 13	Dr. 11	14	55	Dr. 449
1948	Dr. 1,248	315	Dr. 14	Dr. 14	23	18	Dr. 919
1949	Dr. 1,067	549	Dr. 12	Dr. 11	15	15	Dr. 513
*1950	Dr. 1,510	442	† Dr. 35	Dr. 16	Dr. 18	42	Dr. 1,095
1951	Dr. 1,698	382	† Dr. 53	Dr. 12	Dr. 25	15	Dr. 1,390

† Includes Grand Canal from 1/6/50.

G. N. R. Co.

1945	399	80	—	—	14	70	563
1946	148	87	—	—	24	70	329
1947	65	95	—	—	22	75	257
1948	Dr. 39	60	—	—	8	58	87
1949	Dr. 214	91	—	—	6	41	Dr. 76
1950	Dr. 233	74	—	—	4	43	Dr. 112
1951	Dr. 609	17	—	—	Dr. 1	28	Dr. 565

\* NOTE—The figures for C.I.E. for 1950 cover the period from 1st January, 1950, to 31st March, 1951, while those for 1951 are from 1st April, 1951, to 31st March, 1952. These two periods will obtain in subsequent tables for 1950 and 1951.

The above figures present a most unfavourable financial result of the operations of the two important transport undertakings in this country. The net revenue deficits were largely due to the working

of their railway systems, which were relieved in some part since 1946 in the case of C.I.E. by the relatively large surpluses from the road transport systems, and to a much smaller extent on the G.N.R. by the profits of its road transport organisation. The losses in the railway branch of C.I.E. for the 5½ year period, 1947-51, amounted to almost £6½ million, an average of approximately 1¼ million per annum; while the net deficit on the railways section of the G.N.R. for the 5-year period ending 1951 was slightly over £1 million; on the other hand, for the same periods, the road transport undertakings of C.I.E. yielded a net surplus of 2¼ million, and the road system of G.N.R. showed a profit of approximately £.3 million. The smaller amounts on the G.N.R. Co. in 1948-51 under heading, "other revenue," are largely accounted for by the reduced yield from investments.

As the allowances for depreciation on railway permanent way and rolling stock and on rolling stock etc., of road transport undertakings are taken into account in ascertaining the net surplus or deficit in the above years, the basis of their determination is an important matter for consideration. For 1945-49 inclusive, the total amount allowed for depreciation on the rail and road enterprises of C.I.E. was £4.16 million. It may be noted that the total amount provided, allowing for transfers to net revenue by the G.S. Rys. Co. between 1925-31 was only £84,000, while no provision was made for depreciation between 1932-41. On pages 34 and 35 of the Milne Report on Transport in Ireland, 1948, there are references to the total amounts provided for depreciation or renewal of wasting assets of C.I.E. and the conclusion is reached that the depreciation allowances for its various undertakings for 1945-47 inclusive, amounting to £2.32 million, were more than adequate in relation to the written down value of the assets as a whole. Certain suggestions are made for a revision of the basis for providing for depreciation in the Company's accounts. It was recommended that they should be made retro-active to 1st January, 1945, and that the subsequent balance sheets should be reconstructed accordingly. By the adjustment of the capital value of the assets and the release of the renewal fund, the adverse balance of £811,900 in the Profit and Loss account for the year ending 31st December, 1947, would be converted into a credit balance of approximately £75,000. The amount so allowed for the rail and road systems of the G.N.R. Co. for 1945-49 was £634,000 in addition to the depreciation fund of £2.16 million at the beginning of 1945.

*Gross Railway Receipts (£ million) of C. I. E. and G. N. R. for 1945-51.*

C. I. E.

Year	PASSENGER TRAIN				GOODS TRAIN					Other Receipts	Total
	Passengers	Mails	Parcels &c.	Total	Merchandise	Live-Stock	Coal &c.	Other Minerals	Total		
1945	1.11	.12	.39	1.62	2.21	.51	.26	.57	3.55	.03	5.20
1946	1.15	.13	.41	1.69	2.16	.43	.21	.46	3.26	.02	4.97
1947	1.06	.09	.45	1.61	2.16	.35	.22	.51	3.25	.02	4.88
1948	1.30	.11	.48	1.89	2.55	.32	.15	.31	3.33	.03	5.25
1949	1.37	.13	.45	1.95	2.60	.33	.13	.24	3.30	.03	5.28
1950	1.48	.16	.55	2.19	3.17	.39	.19	.27	4.02	.03	6.25
1951	1.38	.16	.48	2.01	2.88	.42	.12	.30	3.72	.04	5.77

G. N. R.

1945	1.41	.04	.16	1.61	.89	.16	.10	.09	1.25	.05	2.91
1946	1.31	.04	.16	1.51	.90	.15	.08	.11	1.24	.05	2.89
1947	1.27	.04	.18	1.48	.95	.14	.08	.10	1.23	.05	2.81
1948	1.40	.04	.19	1.63	1.06	.14	.09	.08	1.36	.06	3.05
1949	1.27	.04	.19	1.50	1.08	.13	.09	.05	1.35	.06	2.91
1950	1.10	.04	.19	1.33	1.09	.14	.08	.05	1.36	.07	2.76
1951	1.12	.04	.19	1.34	1.04	.16	.09	.05	1.34	.08	2.76

The above figures show a slight upward movement each year in receipts from passengers travelling on C.I.E., except in the year 1947, in which there was a suspension of passenger train services on account of fuel difficulties, and in 1951. During the first six months in 1947 passenger services were suspended for over twelve weeks, and for the remainder of this period only a limited passenger train service was run. The increases in the annual receipts from passenger trains from 1948 were due to the increases in the rates and fares from 21/4/47. For 1951 there was an increase of 111% in loaded passenger train miles over the total in 1945, in which only a limited passenger train service was available. On the other hand, the number of passengers in 1951 was about 1½ million less than in 1945, made up of about one million first class, and slightly less than ½ million third class passengers. The position of the G.N.R. in respect to the aggregate of passenger fares throughout the period under review, and especially when the returns for 1951 are compared with those for 1945, showed that in spite of the permitted increases at different times for the northern and southern parts of the system, there was a reduction of almost £300,000 in income from passenger fares, and a decline of 7¼ million passengers.

With a view to attracting to the railway an increased proportion of available passenger and goods train traffic, and to forestall the probable road transport competition which would arise when the emergency conditions ceased, the board of the C.I.E. decided to reduce all railway rates and charges from 1st July, 1946. Reductions of approximately 15% were effected on single passenger fares and 9% on return fares; a new classification of goods conveyed by goods train was made by which six classes replaced the existing nine classes, and certain reductions in the rates of carriage of goods within these classes took place. Judging by the total receipts for 1946 from the transport of passengers and parcels the results were more favourable than those for 1945, but there was a decline in revenue from goods trains in this year compared with that for 1945. The much reduced income during the period of the entire and partial suspension of passenger trains and of the limited goods train services during the early part of 1947 compelled the board to revise its charges. So, it was decided to increase all railway rates and fares by 20% from 21st April, 1947. These increases were not sufficient to meet the increasing expenditure on the railway services or to lessen the deficit margin between gross receipts and expenditure, which amounted to almost £1 million in 1947, £1¾ million in 1948 and slightly over £1 million in 1949. Although further increases of 16¾% in single fares and 8½% in return fares were operative from 1st May, 1949, the revenue from passenger fares for this year only exceeded that of 1945 by about 5%. The corresponding figures for 1950 need not be considered as

it is a fifteen month period. Another increase of 14 $\frac{7}{8}$ % in single and of 12 $\frac{1}{2}$ % in return passenger fares took place from 10/9/51. In spite of the increases in 1949 and 1951, revenue from passenger fares in 1951 was greater than that for 1948 by only 6%. It may, however, be noted that the increased rates in 1951 were only effective for the least profitable time of this year.

In 1951 there was one first class passenger in every sixteen travelling on C.I.E. compared with one in every nine and six in 1948 and 1945 respectively. The relatively lower proportion of first class passengers in 1948 and especially in 1951 was influenced in a large measure by the greatly increased number of private motor cars in these years. The relatively large proportion of first class passengers in 1945 was due to the limited train services in which the number of loaded passenger train services was only 45% of that in 1951, the rationing of private cars to essential services, the overcrowding of third class coaches, as a result of which a number travelled first class. The proportion of first class and second class passengers to the total number travelling on the G.N.R. was one in every seven in 1945, and one in every nine and thirteen in 1948 and 1951 respectively.

The only item under the heading of goods train traffic on C.I.E. showing an increase in gross receipts in 1951 compared with 1945 is merchandise. The number of tons of merchandise carried in the latter year was 1.71 million at an average rate of 24/7 $\frac{1}{2}$ d. per ton compared with 1.69 million tons in 1951 at an average rate of 30/2 $\frac{1}{2}$ d. per ton. As the weights given are independent of the distance of haulage, ton-miles are a better criterion. The ton-mileage for merchandise in 1945 was 145 million or an average rate of 3.66d. per ton-mile compared with 166 million ton-miles in 1951, or an average rate of 4.17d. per ton-mile, giving an average increase of 12% in rates, assuming that the same proportion of the many articles under the heading, merchandise, was carried in 1945 and 1951. The reduction in receipts from the movement by rail of live-stock was due to the smaller number, .90 million in 1951 compared with 1.71 million in 1945, which tends to prove that the competition of road haulage of some kinds of live-stock, such as sheep, pigs and calves, has had an adverse effect on their conveyance by rail. There was a large decline in 1951 compared with 1945 in the receipts from "other minerals" which consisted mainly of turf and sugar beet, due in a large measure to a reduction in the carriage of turf to populous centres. This is evidenced by the fact that the ton-mileage of "other minerals" in 1945 was 77 millions compared with 32 millions in 1951. The gross income of C.I.E. from the rail haulage of coal in 1951 was very low, in fact the lowest in any year since 1938. The amount carried was only 45% of that moved in 1945, while the ton-mileage in the latter year was double that of 1951. In fact, the tonnage of coal carried on the C.I.E. railway system in 1945 was 38% of the imports of coal, in 1948 it was 13%, and in 1951 about 7%.

As in the case of C.I.E. the revenue from general merchandise on the G.N.R. constituted the largest part of the total income from rail-borne goods traffic. Compared with 1945, the receipts from the carriage of live-stock, coal etc., have been fairly steady in the period under review, while there has been a decline in 1951 in the income from



"other minerals" and an increase in that from merchandise, as a result of higher rates. Turning to the ton-mile statistics we find that there has been a decrease in the latter year under the headings of all the items referred to. Comparing 1951 with 1945, the percentage reductions in ton-miles are live-stock  $33\frac{1}{3}$ , merchandise 7, coal etc., 22, "other minerals"  $62\frac{1}{2}$ ; while the percentage increases in the average receipts per ton-mile as a result of the higher rates, are live-stock 36, merchandise 26, coal etc., 18, "other minerals" 30. There was a large diminution in the numbers of live-stock carried in 1951 compared with 1945, the aggregate in the latter year being 753,000, and in the former 505,000. The percentage reductions were: pigs 87, calves 75, sheep 30 and cattle 25.

As the ton mileage is partly dependent on the road mileage, the much longer route mileage, first track, 1907 miles owned by C.I.E. compared with 543 of the G.N.R. will have a greater influence on the ton-mile traffic of the different headings, and will render it difficult to compare the ton-mile statistics of the two systems. The total of 297 million ton-miles in 1945 for C.I.E. may be largely accounted for by the carriage of large quantities of "other minerals," chiefly sugar beet and turf, by the relatively large number of ton-miles under the heading, coal etc., due in some measure to the development of Irish mines during the Emergency, and to the reduction in private and public road haulage, consequent on the scarcity of petrol supplies. The ton-mileage figures of the G.N.R. were similarly affected by the absence of many private and public hauliers from the roads. In 1951 transport conditions had altered, and the number of commercial lorries registered and licensed in the State had increased from 9,775 in 1945 to 26,721 in 1951. As business firms owning these lorries used them for the conveyance of their own goods, the greater part of the remainder of the available traffic, no small proportion of which was low rated and oftentimes costly to handle or carry, was left to the statutory transport companies.

*Expenditure in respect of Railway Working (£ million) of C. I. E. and G. N. R. for 1945-51.*

C. I. E.

Year	Ways and Works	Rolling Stocks	Locomotive Running	Traffic	Other Expenses	Total
1945	1.01	.92	1.63	.99	.40	4.96
1946	.92	1.09	1.78	1.14	.46	5.39
1947	1.03	1.15	1.95	1.25	.47	5.85
1948	1.23	1.49	1.87	1.41	.50	6.50
1949	1.31	1.32	1.73	1.42	.56	6.35
1950	1.57	1.53	2.15	1.81	.70	7.75
1951	1.46	1.33	2.43	1.68	.55	7.46

G. N. R.

1945	.40	.47	.77	.69	.18	2.51
1946	.45	.49	.82	.73	.16	2.65
1947	.47	.51	.82	.77	.17	2.74
1948	.50	.57	.93	.87	.22	3.09
1949	.52	.58	.93	.88	.21	3.12
1950	.51	.57	.86	.83	.23	3.00
1951	.58	.70	.91	.93	.25	3.37

The increase in the total railway working expenditure of C.I.E. in 1951 over that in 1945 was about £2½ million or 50% ; while for the G.N.R. the increase was £·86 million or about 34%. Turning to the tables on gross receipts in respect of railway working, the increase for C.I.E. in 1951 over those for 1945 was £·57 million or 11% ; while there was a decrease of about 5% in the gross receipts of the G.N.R. in 1951 on the 1945 figures, which was accounted for by the relative decline in the total of passenger fares.

The heading showing the greatest increase in expenditure on C.I.E. was locomotive running expenses, due in a large part to the exceptionally heavy fuel costs which rose from £1·06 million in 1945 to £1·614 million in 1951 ; while the average prices of coal per ton for 1945 and 1951 were 69/- and 141/7d. respectively compared with the average of 59/9d and 82/2d. per ton on the G.N.R. for these years. The average price of coal per ton for C.I.E. for 1951 appears to have been exceptionally high, and may be partly explained by a reference in the Annual Report of the company for the year ended 31/3/52, in which it is stated that in order to overcome the continued shortage of supplies from Great Britain, it was decided to purchase coal from the U.S.A. and Germany, the additional costs of this coal, amounting to 108,000 tons, over the normal purchase price was £200,000. Taking these round figures as approximations, this would mean an extra price of 37/- per ton.

The increased cost of fuel in the case of C.I.E. was mitigated to some extent by an appreciable reduction in the consumption per engine mile from 85·33 lbs, a result of the very poor quality of coal used in 1945, to 52·70 lbs. in 1951. The latter figure compares favourably with the average consumption of coal per engine mile of 56·98 lbs. for the same year on the G.N.R. The average cost of fuel per engine mile in 1945 and 1951 for the C.I.E. was 2/7d. and 3s. 3·74d. respectively, whereas the corresponding cost for these years on the G.N.R. was 1/6d. and 2/2·1d., the latter being one-third less than that for C.I.E. for the same year.

The only other important item under the heading of locomotive running expenses was the amount paid in wages, which totalled £741,000 for C.I.E. in 1951, and exceeded by £245,000 the sum paid in 1945. In relation to engine mileage this wage bill works out at 1/2d. and 1/6·2d. per mile for 1945 and 1951 respectively. The corresponding wage rates on the G.N.R. were 9·4d. and 1/3·4d. per mile. Combining the costs of fuel and wages per engine mile for steam locomotives on the two systems for 1951, the total for C.I.E. was almost 4/10d., and that for the G.N.R. was 3/5·5d.

It is an interesting fact that the mileage of the operations of diesel rail cars on the G.N.R. had almost quadrupled between 1945 and 1951. They were employed in the latter year on 16·4% of the total mileage run by the company's trains on their own lines and other company's lines and were operated on about 30% of the total passenger mileage. An analysis of the running expenses of steam engines and diesel cars for their mileages in 1951 shows that, after proportioning the costs of salaries and office expenses of superintendence directly incurred, the total running cost of operating steam engines was 3/8·7d. per mile, while that for diesel rail cars was 8·9d. per mile, or about one-fifth of that for steam engines. It should be noted that

steam engines are engaged in haulage of passengers and goods, and run a large number of miles for the purpose of shunting, whereas diesel rail cars are only used to move passengers. It may be noted that the total of shunting miles by steam engines on the G.N.R. in 1951 constituted about 22% of their aggregate mileage.

The proportion of loaded wagon miles to the total wagon mileage is a useful index of operating efficiency. For the years 1945 and 1951 the percentages were 71·35 and 73·69 on C.I.E. while the corresponding percentages on the G.N.R. were 73·07 and 71·85. These figures compare favourably with those of the G.S. Rys. and G.N.R. in 1938, in which the respective percentages were 69·4 and 70·1.

The average wagon load may be considered a criterion of economical loading and of the general efficiency of the goods department provided that there is a large measure of co-operation by consignors. With an increase in the average load, a certain amount of traffic could be hauled in a smaller number of wagons. It may, however, be noted that if alterations take place in the proportions of the main classes of goods carried and in the size of wagons used in the years under consideration, the results may not be comparable. As the figures stand, the average wagon load for C.I.E. for 1945 and 1951 was 4·81 and 4·02 tons respectively, while the average wagon load for the G.N.R. for these years was 4·13 and 3·45 tons. In the case of each company the figures for 1951 show a reduction of 16% on those for 1945.

Although the average loading weight of freight trains on C.I.E. and the G.N.R. in 1945 was practically the same, 81·69 and 81·59 tons respectively, these averages were reduced in 1951 by 8½ tons in the case of C.I.E. and 6½ tons for the G.N.R.

*Road Transport (£ million)—C. I. E.*

Year	EXPENSES			RECEIPTS			Balance
	P'snger Services	Goods Services	TOTAL	P'snger Services	Goods Services	TOTAL	
1945 ...	1·86	·81	2·67	2·82	·75	3·57	·90
1946 ...	1·98	·83	2·81	2·81	·83	3·64	·82
1947 ...	2·09	1·12	3·21	2·55	1·14	3·69	·48
1948 ...	2·88	1·06	3·94	3·19	1·07	4·26	·31
1949 ...	3·28	·95	4·23	3·81	·97	4·78	·55
1950 ...	4·40	1·37	5·77	4·89	1·32	6·21	·44
1951 ...	4·03	1·37	5·40	4·43	1·36	5·79	·38

*Road Passenger Transport (£ million)—G. N. R.*

Year	Expenses		Receipts		Balance
1945 ...	·162		·242		·080
1946 ...	·190		·277		·087
1947 ...	·243		·338		·095
1948 ...	·329		·389		·060
1949 ...	·338		·429		·091
1950 ...	·342		·416		·074
1951 ...	·358		·375		·017

Although the C.I.E. road passenger transport was largely freed from the competition of private motor cars in 1945, some of its services were suspended and the frequency of others was limited, consequent on the shortage of vehicles, scarcity of motor fuel and spare parts. As these supplies became more abundant in 1946, the company was able to increase the frequency of its road services, and almost all those suspended were restored in 1948. At the same time private motor cars were registered and licensed in increasing numbers in the State from 1946 : 7,485 in 1945, 44,489 in 1946, 60,453 in 1948 and 96,714 in 1951.

In the above tables for C.I.E. under the heading of road transport expenses there are included amounts allowed for depreciation and transfers to renewals account, the total of which for 1945-51 was slightly over £2½ million, the allowances in the case of buses being almost £2 million. The aggregate of similar allocations on account of bus vehicles of the G.N.R. was £170,000 for the same period. The total of the gross receipts from railway working (£5·77 million) for C.I.E. in 1951 is approximately the same as that from road transport services (£5·79 million) for the same year. On the other hand, the expenditure in this year on account of railway working (£7·46 million) is much higher than that incurred (£5·40 million) in connection with road transport.

By far the most profitable branch of road transport of C.I.E. was that of road passenger services, which earned a substantial profit in each year, amounting to £3·97 million for the years under review ; while the road freight branch incurred losses of £126,000 in the course of four years, and for the remaining three years showed a profit of £41,000. Following the Emergency years, 1945 and 1946, in which the respective profits were £·96 million and £·83 million from passenger services, a large reduction took place in the surplus between receipts and expenses, the highest being £·55 in 1949, and the lowest £·31 million in 1948. In fact, the annual expenditure tended to increase at a more rapid rate than the receipts : the increase in expenditure in 1951 was 117% on the 1945 figure, while the corresponding percentage increase in receipts was 58, which resulted from increases in passenger fares and a great increase in the number of passengers. The latter may be inferred from statistics of the total number of passengers using the internal road passenger services within the State, according to the March numbers of the *Irish Trade Journal* : 189 millions in 1945, and 292 millions in 1951. 81% of the latter used the Dublin City and Suburban services. It is interesting to note that about 64% of the total receipts from road passenger services of C.I.E. in 1951 came from those in Dublin City, 8% from other cities, 24% from provincial services, and 4% from tours and private hire, while the proportions of total number of passengers carried were : Dublin, 84, other cities 12, and provincial services 4.

The credit balance of receipts and expenses of the road passenger services of the G.N.R. £17,000 for 1951 was much lower than that for any of the preceding years, and was largely due to the cessation of working of these services, as a result of a strike, which lasted from September 30th to November 25th in this year. At the same time, it may be pointed out that the total expenses (including depreciation, £44,000) for this year were higher than those of the previous years under consideration.

I am greatly indebted to Mr. Hartnell Smith, ex-Chief Accountant of the C.I.E. and to Mr. P. H. Patterson, Accountant of the G.N.R. Co. for their unfailing courtesy in placing at my disposal important financial and operating data relating to their particular Companies, not available in the published returns. My thanks are also due to Mr. J. J. O'Dwyer, Commercial Superintendent of C.I.E. for supplying me with details of changes in transport rates and of periods of suspension of services on C.I.E. I found the Transport Section of the Statistical Abstract of Ireland very useful in providing statistical information on public transport in Ireland. To Dr. J. P. Beddy I wish to express my gratitude for his valuable suggestions on reading the original draft of this paper.

## APPENDIX.

*Issued Capital of C. I. E.*

1945	£	1951	£
3% Debenture Stock	9,889,083	3% Transport Stock 1955/60	9,889,083
Common Stock ...	3,517,726	2½% Transport Stock 1955/60	3,000,000
		3% Transport Stock 1975/85	3,514,460
	<u>13,406,809</u>		<u>16,403,543</u>

*Issued Capital of G. N. R. Co., 1951.*

	£	%
4% Debenture Stock ...	2,324,881	25·18
4% Guaranteed Stock ...	869,270	9·41
4% Preference Stock ...	1,990,180	21·55
Ordinary Stock ...	4,050,689	43·86
	<u>9,235,020</u>	<u>100·00</u>

The last dividend paid on C.I.E. Common Stock was 3% for 1946. The losses as shown in the Net Revenue Accounts of C.I.E. for the successive years, 1947 to 1951, in £ million were: ·91, 1·42, 1·21, 1·97, and 2·09, taking into account interest on Debenture and Transport Stocks and other interests, charges, pension funds, &c., and crediting rents, &c.

G.N.R. Co. ceased to pay the 4% dividend on the Guaranteed Stock after 1948, the 4% dividend on its Preference Stock after 1947, and only paid 1% on its Ordinary Stock in 1947, after which no ordinary dividend was paid. The net deficit, after payment of fixed charges, of the G.N.R. Co. for the three years, 1949-51, were £83,778, £220,971, and £675,284 respectively.

*Receipts and Expenditure in respect of Railway Working, £ million.*

## C. I. E.

	1945	1946	1947	1948	1949	1950	1951
Receipts	5·20	4·97	4·88	5·25	5·28	6·25	5·77
Expenditure	4·96	5·39	5·85	6·35	6·35	7·75	7·46

## G. N. R.

Receipts	2·91	2·80	2·81	3·05	2·91	2·76	2·76
Expenditure	2·51	2·65	2·74	3·09	3·12	3·00	3·37

*Division of the net receipts of the G. N. R. between the Twenty-Six and Six Counties of Ireland.*

	Total	Twenty-Six Counties	Six Counties
	£	£	£
1945	+ 538,156	+ 365,421	+ 172,735
1948	+ 70,541	+ 221,604	— 151,063
1951	— 582,289	— 116,253	— 466,036

*Total Salaries and Wages (Rail and Road).*

		C.I.E.	G.N.R.
		£ million	£ million
1945	...	4.05	1.63
1951	...	7.96	2.32

*Amount and Cost of fuel consumption per steam engine mile.*

Year	C.I.E.		G.N.R.	
	lb.	s. d.	lb.	s. d.
1945	85.3	2 7.4	54.0	1 6
1951	52.7	3 3.7	57.0	2 2.1

In 1945 the quality of coal used by C.I.E. engines was much below ordinary standards. In 1951 large quantities of coal had to be imported by C.I.E. from countries other than Great Britain, and, in consequence, costs were abnormal.

APPENDIX.

*Volume of Rail Passenger Traffic (in millions).*

Year	C.I.E.			G.N.R.				
	1st	CLASS		1st	2nd	CLASS		Total
		3rd	Total			3rd	Work-men	
1945 ...	1.51	7.92	9.43	.51	1.67	13.90	.56	16.64
1948 ...	1.11	8.78	9.89	.33	1.08	10.11	.75	12.27
1951 ...	.49	7.44	7.93	.71	—	7.98	.71	9.40

The number of journeys of season-ticket holders is taken into account on the assumption that each holder makes, on the average, about 600 journeys in the year.

*Ton-miles (million) of rail-borne traffic.*

Year	C.I.E.					G.N.R.				
	Live-Stock	Merchandise	Coal, Coke, &c.	Other Minerals	Total	Live-Stock	Merchandise	Coal, Coke, &c.	Other Minerals	Total
1945	31	145	44	77	297	12	69	9	16	106
1948	18	157	23	32	230	9	68	7	9	93
1951	23	166	23	32	243	8	64	7	6	85

*Average Receipts per ton-mile.*

	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
1945	3.97	3.66	1.43	1.78	2.87	3.26	3.11	2.50	1.43	2.82
1948	4.26	3.90	1.60	2.29	3.47	3.78	3.76	3.00	1.95	3.52
1951	4.35	4.17	1.22	2.30	3.67	4.44	3.92	2.94	1.85	3.74

## DISCUSSION

*Lord Glenavy*, in moving the vote of thanks, thought the paper was admirable both for thoroughness and penetration. Penetration because, although help was acknowledged from accountants of the transport undertakings, and figures in abundance were available, they had not originally been prepared or presented for the objects which Prof. Shields wished to serve. It was evident that he had had to undertake much special and laborious investigation of them.

As for thoroughness the text seemed so complete and accurate within its appointed limits that no direct comment suggested itself on any point of major or general interest. The paper did not purport to deal with policy, but it was not possible to hear it read without questions of policy starting up. The wretched financial experience in recent years of the major transport undertakings (not excluding the Ulster Transport Authority though it was not within the scope of the paper) as set out in such detail by Professor Shields must cause continuing anxiety. It had been necessary for some years to find several millions from both Irish Exchequers in order to operate, and maintain, public transport by road and rail and no sign of abatement in the burden was yet visible.

The cause of the heavy losses which were being sustained had been shown, long before the last war, to lie in the great excess of transport facilities over the quantity of traffic requiring transport. Since the end of the war that excess had been multiplied by the continuous increase in the number of private lorries and cars. The result was the subsidised employment in various forms of transport of more and more persons for whose services there was no adequate demand, and who would be employed far more productively in other spheres.

Professor Shields had explained that during the war the public undertakings had been amply self-supporting, and made clear that the reason was their having then obtained the traffic needed to engage their full loading capacity. Their present plight was unmistakably

due to gross underloading because of traffic being abstracted to the private sphere. The inevitable remedy—for other sections of the community would become more and more reluctant, and progressively unable, to subsidise redundant employment in transport—was a sensible adjustment of facilities to available business.

*Senator Johnston*, in seconding the vote of thanks, referred to the fact that Ireland in recent years appeared to devote more resources to increasing transport facilities, especially by road, than to increasing the quantity of goods to transport. It was a serious discovery from a national point of view to divert traffic from rail or canal thus leaving these working much below capacity with inevitable expense to the taxpayer by way of subsidy. The railway station at Naas should never have been scrapped. Naas is now solely dependent on road transport with the result that the Naas-Dublin road is now a nightmare for ordinary road users. The proposal to build a fixed bridge at Athlone would cut the Shannon navigation in two and prevent for all time the development of the considerable amenities and facilities of this natural reserve for commerce as well as for pleasure. The E.S.B. has already done great damage to the upper navigation of the river in the Lough Allen region by drying up a navigation channel. The Arigna coal ought to be distributed mainly by water. It has now only road and inadequate railway facilities.

*Mr. J. T. O'Farrell* (Director of C.I.E.) said people who discussed public transport in Ireland rarely bothered to study its problems. For instance, density of population in Ireland was 113 to the square mile as compared with 737 in England and Wales. Worse still (from a transport viewpoint) was the fact that all the chief cities and towns were on the coast, providing little or no work for public transport in connection with their external trade. What a difference it would make if Dublin occupied the centre of Ireland!

Traffic in bulk was seasonal, involving the retention and maintenance of a great quantity of equipment, much of which was unused during a big part of the year and hence uneconomic. Traders who claimed to handle the whole of their own transport did nothing of the kind. They dealt only with that part of it which was economic, leaving the uneconomic part (a big proportion) to public transport. The traffic available or likely to be in the foreseeable future did not justify the increase in commercial vehicles from 9,700 in 1945 to over 33,000 in 1953. Many shops did not result in low prices—quite the reverse—and the same principle must apply in transport.

C.I.E. passenger fares only increased by 96% since 1939, live-stock and minerals by 97% and merchandise by 104%. At the same time the Agricultural Index stood at 322 (1938=100), whilst the wholesale Index was 290. Yet, there was a complaint about alleged high transport charges.

*Mr. J. E. Fox* (a visitor) said that if the Paper had included analysis of the statistics of the Londonderry & Lough Swilly Railway, it would have demonstrated that during the period covered that Transport Undertaking had gradually changed from railway operations until it was now carrying all goods and passengers by road services.



This could be said to be a headline and showed the necessary courage to take decisions which have not been faced in other parts of the country. For this reason I found myself in sympathy with some of the remarks made by a speaker from the body of the hall who had referred to bus services being in the hands of railway departments and mentioned the complete absence of express coach services, etc., in the territories covered by the C.I.E. and G.N.R.

*Mr. A. Malcolm* said that the state of transport in Ireland was the same as the state of transport in every other country in the world ; that it was not a solution to merely close down the rail end and transfer all the transport to the road, and that as a country must have an efficient transport system, the problem would have to be solved or the people in the country would have to continue to pay to keep the existing system going.

*Colonel E. O'Brien* : It is worth while drawing attention to the desirability of any company accumulating substantial renewal funds for the wasting assets of their undertaking. My old Company, The Lancashire & Yorkshire Railway Co. set aside each year substantial sums for the renewals of locomotives, carriages and wagons, permanent way. As a check on the sufficiency of these funds continuous record must be kept of the average age of each asset and a comparison figure of the reasonable life to be expected from such. If the average age is found to be increasing steadily over a period, say, 5 to 10 years, the renewal fund is not actually sound. In spite of what seemed to be sound practice in this respect, I found that the average age of locomotives for instance was steadily increasing. The renewal funds can be used, if judgment is exercised, as a dividend equalisation fund to a small extent, but this is not a desirable practice. Excessive expenditure on repairs can be used to mask the necessity for a substantial renewal fund, but there is no means of concealing the average age of motor buses, locomotives, etc., except by capital expenditure on such items, a course which eventually produces its own difficulties. It is worthwhile drawing attention here to the unsound practice of the Irish hospitals where no provision for renewals is made, these institutions being compelled by the Minister for Health to spend capital on renewals of equipment.

In putting the vote of thanks to the Meeting, the *President* said that the Society was indebted to Professor Shields for his researches in the field of transport. These researches had resulted in three papers being read before the Society over a long period of years. The importance of these papers lay in the fact that, while erroneous impressions might be gathered by casual annual inspections of the Accounts of Public Transport Companies, the position was different, however, when a careful analysis was made of the accounts of such concerns for a period of years as it was only in this way that trends emerged clearly. Professor Shields had brought out these trends which enabled the transport position to be judged in its true perspective. On the previous occasion on which he read a paper he dealt with a period which might be described as seven good years

in public transport, i.e., war years during which the Transport Companies made profits through working to capacity to a very much greater extent than had previously been possible. To-night Professor Shields dealt with seven distinctly lean years which exhibited most depressing trends. During those years the Companies had resorted to many expedients to avoid enormous losses. In face of rising costs they had increased rates and fares, but the result was that they lost traffic. They are thus on the horns of a dilemma. Professor Shields' paper raised many important questions, foremost among which is whether railways can be made pay at all. There was still room for research as to the extent of the traffic which was being lost by the railways to other forms of transport and whether the transfer of this traffic to the railways would enable them to operate economically. It might well be that it would not or that it was unrealistic to expect a transfer without compulsion of a kind which would be undoubtedly resented as unfair and, in consequence, might defeat itself. Should researches show that there was little prospect for railways in the future, then very important questions require careful consideration. It would be necessary to form an opinion as to whether alternative forms of public transport will emerge so that passengers and goods could be carried cheaply, efficiently and economically. It had still to be determined that under such alternative forms of public transport public interest and convenience would be served. The railways at present as common carriers must handle all traffic offering. Would a new form of public transport carry with it the same obligations? Would the comfort, safety and convenience of passengers be ensured and, as regards merchandise, would heavy goods of low value be carried over long distances at rates which would not kill the traffic and at the same time be economic for the operator? These are but some of the considerations which would arise should the trends revealed by Professor Shields' paper be aggravated to such an extent that the burden of continuing to operate railways would be regarded as too great.

*Professor Shields* in reply said that he wished to thank the various speakers for their kind reception of his paper. It was compiled for two reasons: one, to continue the series of lectures which I have delivered before this Society on public transport since 1924, and the other, to enable a number of people, who have had practical experience of public transport, to give their views on this most complex problem.

We have been impressed by the extremely able speech by Lord Glenavy in his consideration of important questions relating to public transport. Stockholders at the annual meeting of the G.N.R. Co. have been equally impressed by his comprehensive surveys of the results of the finances and working of this system during the years he has acted as chairman. In the course of his speech he pointed out a difference between two sets of figures in connection with the C.I.E. from 1947 to 1951: one the total *Dr.* balances, amounting to £4.37 million in the table of net revenue receipts, and the other, the total of the net loss for this period, £7.6 million. It may be explained that the latter figure also includes interest on debenture and transport stocks, other interest charges, pension funds.

Though it is easy to be wise after the event, it can be said that

the C.I.E. in its component parts, has had an over-dose of legislation, and has received over-generous financial endowment from the State Exchequer. In fact, no organisation in this country has received so much attention from the supreme legislative authority, beginning with the Railways Act, 1924, based on the British Railways Act, 1921, the Railways Act, 1927, and the Railways and Road Transport Acts in 1932 and 1933, dealt with at some length in a previous lecture, and those referred to in the present lecture.

I have been asked my views on the future policy of public transport. Now that public transport has been nationalised within the State, and to a large extent in the northern parts of the country, its successful operation is a matter of far-sighted direction and efficient administration. Many of the weaker railway lines, which should never have been included or continued in any scheme of amalgamation, will have to be eliminated, and be replaced by road services. The relationship between rail and road transport, especially their respective spheres for the purposes of transport, must be carefully considered. Important economies must be effected in the working so as to lessen the heavy burden on the taxpayer. The economical operation of diesel rail cars compared with that of steam engines on the G.N.R. system, as pointed out in the lecture, should, if extended to C.I.E. lines, lead to considerable savings in running costs. In such circumstances, account must be taken of the amounts allowed for obsolescence or depreciation of the old steam engines, coaches, wagons, etc., and also for depreciation of new capital equipment purchased in addition to the usual accountancy charges. With a view to direct personal contact between the Boards of the two nationalised Companies and the business community a system of regular consultation about three or four times a year could be adopted whereby representatives of business associations within the areas of the two systems could meet the chairmen of C.I.E. and of the G.N.R. Board at separate meetings and discuss problems affecting public transport.