

ment of them has been a success or that it has secured better results than private management did. The writer of the paper in question shows that their net earnings are only about 1½ per cent on their capital cost. This net return fails by not less than \$35,000,000 a year to equal the interest which the government has to pay on the railway debt; and the government has been losing money at a proportionate rate ever since it assumed the management of the railways. Financially, therefore, the state railways are a failure. Furthermore, their service is still poor and their rates high.

For the reasons for the financial failure of the Italian railways we must go back to an era of railway building begun about a quarter of a century ago. At that time the government entered on an extensive campaign of construction which was extravagantly carried out, the result of which was that the lines built cost a great deal in excess of the original estimates. In one case contracts were let for 927 miles of line at \$50,300 a mile. The actual cost proved to be \$115,200 a mile. In 1879 the government provided for the construction of 3,762 miles, which it estimated would cost \$64,300 a mile. Nine years later an act was passed which recognized the probable cost of these lines, a large part of which had been built, as \$128,300 a mile.

The Italian railways when leased to private companies were burdened with the enormous capital cost resulting from wasteful government methods, and to this was largely due the failure of private management. Under government management since 1905 their capital cost has continued to increase at a rapid rate, and in 1913 it amounted to \$158,000 a mile, being exceeded by the capital costs of only two railway systems in the world—those of Belgium and the United Kingdom. Needless to say, the facilities provided and the traffic developed and handled are far inferior to those of the railways of Belgium and the United Kingdom. Measured by any rational standard government management of Italy has been a failure.

The inquiry naturally arises as to the reason or reasons for the difference between the results of state management in India and in Italy. The answer is at once suggested by the differences between the political conditions in the two countries, and the consequent differences between the organizations of the railways. India is not a self-governing country. It is ruled by a British civil service, the standards of honesty and efficiency of which are very high. The management of the state railways is in effect a part of this civil service. It is not influenced by politics of the "pork barrel" variety. It runs the railways on business principles.

On the other hand, the people of Italy are self-governing, although their government is monarchical in form. The management of the railways is under the control of parliament. In consequence their construction and operation always have been influenced by politics. Where new lines have been built, or improvements made, often has been determined by sectional

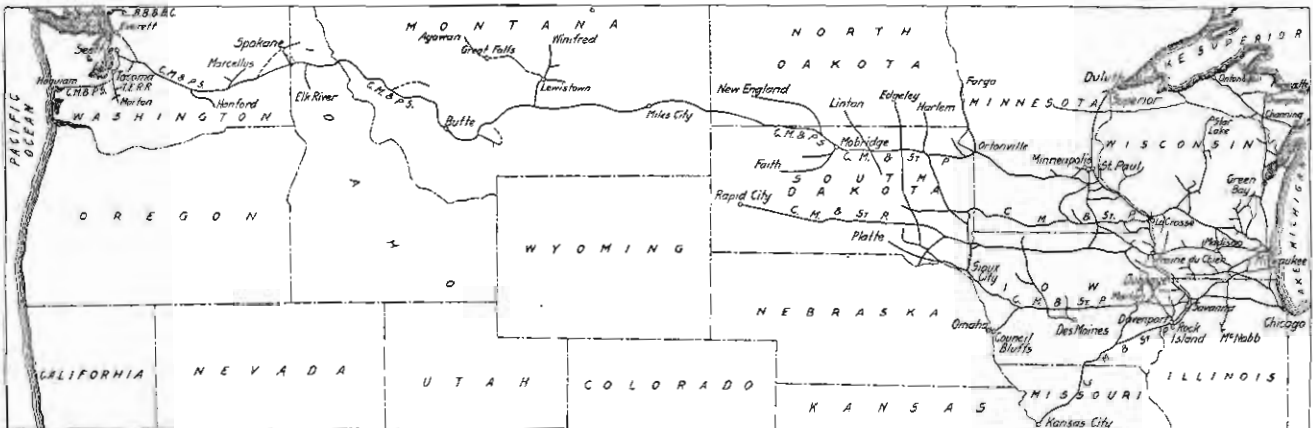
rather than national considerations. The employees of the state railways are organized, and their strikes and voting power have been important factors in determining the conditions and efficiency of the work done by them, and the wages they have been paid. These facts are not mentioned by the author of the paper presented at the Engineering Congress, but their truth is easily demonstrable by evidence from other reliable sources, and they afford the true explanation of the enormous losses inflicted by government railway management on the people of Italy.

The conclusion suggested by a comparison of state railway management and its results in India, on the one hand, and in Italy, on the other, is the same conclusion which is suggested by comparison of the management and results of the state railways of many other countries—of Prussia and of France, for example. This conclusion is, that the extent to which government management is a success or a failure is mainly determined by the extent to which politics is allowed to affect it. The more politics of the low, "pork barrel" kind there is in the government of a country, the more certain it is to fail as a manager of railways. Since there is as much politics of this kind in government in the United States as in any other country, the conclusion suggested as to the probable results of government management of railways here is obvious.

CHICAGO, MILWAUKEE & ST. PAUL

IT sounds paradoxical to say that the wisdom of the Chicago, Milwaukee & St. Paul Pacific coast extension was demonstrated in the fiscal year ended June 30, 1915, when the company failed to earn its 5 per cent dividend. Perhaps it would be more accurate to say that the necessity for the Pacific coast extension is being shown each year more clearly. The St. Paul, operating 10,053 miles of railroad, earned in the 1915 fiscal year \$91,435,000, or \$2,178,000 less than in the previous year. The expenses were reduced by \$919,000, and with heavier interest charges and a debit instead of a credit for hire of equipment, the company had net corporate income available for dividends of \$11,968,000, comparing with \$15,476,000 net available for dividends in 1914. Seven per cent dividends on the \$116,275,000 preferred stock and 5 per cent dividends on the \$117,361,000 common stock outstanding call for \$13,952,000. No attempt was made to scrimp on maintenance expenses in an effort to show the dividend as having been earned, and the, approximately, \$2,000,000 which was not provided by net income was taken from surplus. Past experience has proved almost invariably that it is a far sounder policy for a railroad company to frankly pay a part of its dividends from surplus if the company is strong enough to justify payment of dividends when not fully earned in a given year than to postpone maintenance expenditures in order temporarily to make a better showing in net.

Before the Pacific coast extension was built the St. Paul was



The Chicago, Milwaukee & St. Paul

easily earning 7 per cent on its then outstanding stock. It was a road, however, depending entirely on the traffic which it could originate on its own lines, or which was destined for points on its own lines, and it served a highly competitive territory. Competition is growing keener in the northwest every year. To get this competitive business it is often necessary to give a freight service and a passenger service that would not under normal conditions be justified by the traffic and rates. The St. Paul's competitors are the Northern Pacific; the Great Northern; the Minneapolis, St. Paul & Sault Ste. Marie; the Chicago, Burlington & Quincy, and the Chicago & North Western. The Hill Lines, of course, have their western outlet, the Soo has the Canadian Pacific, the Chicago & North Western has particularly close traffic relations with the Union Pacific. While, therefore, the St. Paul was apparently prosperous before it built to the coast, each year has shown the effects of the continually growing competition which the road has to meet and the impossibility of successfully meeting this competition and of reducing expenses, or rather of holding down expenses on local business.

Developing a new railroad is a slow process at best and requires a high degree of steadfast courage and even faith. The St. Paul's line from Mobridge, S. D., to Seattle and Tacoma, Wash., has been in operation since 1909. It is not even yet bringing to the system sufficient traffic to offset increased expenses of the rest of the system and to pay a fair return on the cost of its construction. The history of the transcontinental lines of the northwest, however, and the present development of that section of the country are such as to strengthen rather than weaken the belief with which the building of the Pacific coast extension was undertaken that in time it would be the salvation of the system.

The Hill Lines, the Soo and the North Western all feel the drain of competitive business in the territory east of the Missouri river. But these roads have built up also a through traffic which earns good revenue and can be handled economically. It would appear that it is the building up of a profitable through traffic, with resulting economies in transportation expenses, that will within a few years restore the earning power of the St. Paul, which has been adversely affected by conditions in the last four or five years. This is discussing the question, of course, as it affects the next decade of development of the property. The immediate prospects for large earnings this fall and winter from the movement of the unprecedented large crops apparently assure a prosperous year for 1916.

The falling off of \$2,178,000 in 1915 in operating revenues is less than what will be shown probably by a like mileage of most of the St. Paul's competitors. Revenue freight carried one mile totaled 8,186,000,000 tons, an increase of 1.32 per cent, but the revenue per ton mile was 7.813 mills in 1915, a decrease of 3.28 per cent as compared with the previous year. The number of passengers carried one mile was 858,500,000, a decrease as compared with the previous year of 5.91 per cent.

With only a very small falling off in freight traffic, there was a reduction in transportation expenses of \$1,151,000, the total transportation expenses in 1915 amounting to \$35,698,000. The following table shows the ratio of each class of expenses to total operating revenues:

	1915	1914
Maintenance of Way and Structures.....	11.35	11.45
Maintenance of Equipment.....	15.03	14.56
Traffic Expenses.....	1.92	1.92
Transportation Expenses.....	39.04	39.36
Miscellaneous Operations.....	0.79	0.83
General Expenses.....	2.04	1.78
Transportation for Investment—Credit.....	2.39	2.72
Total Operating Expenses.....	67.78	67.18

Transportation for investment—credit—is a subtraction from expenses representing a charge made by the company to itself for carrying company material. In 1915 the credit under this heading was \$2,183,000, in 1914, \$2,548,000. This looks rather large in both years, but as a matter of fact the amount of company freight carried by the St. Paul is large. The total ton mileage of company freight in 1915 was 1,439,000,000, in 1914, 1,597,000,000.

The average train load is not large, 390 tons in 1915 and 380 tons in 1914. In addition there was company freight which brought the total train load up to 459 tons in 1915 and 454 tons

in 1914. Such a large part of the St. Paul's traffic is local traffic, and so much of it has to be moved promptly without waiting for the opportunity to get a full train load, that, unless we remember what a network of branch lines the St. Paul has, we are apt to forget how difficult it is to make a good showing in train load when compared with a road having few branches and heavy through traffic on its main line. When the through traffic on the St. Paul becomes fully developed the train load figures should be very considerably higher than they now are. It will be noted that the company does a large passenger business. Of the total revenue, about 70 per cent is derived from freight and the other 30 from passenger and service incidental to passenger service. Both the quantity and the quality of the St. Paul's passenger business tend to make for a fairly high operating ratio. The St. Paul has the affection of travelers in the northwest and of citizens of St. Paul and Minneapolis to a remarkable degree. Even in the rather trying years through which the company has just passed the high standard of passenger service which the company has set for itself has been adhered to, and this policy, like that of refusing to stint on maintenance, leaves the company in a strong position to take advantage of better times.

The prospects for 1916 are bright. Never have there been such wheat and oat crops in the territory served by the St. Paul. Farmers of the Dakotas and Montana have cut an unheard-of crop of wheat and oats, and in some cases will probably get a bumper crop of corn also, although the frost probably will get some of the more northern corn. Hundreds of miles of land on which twelve bushels an acre of wheat was an average crop and twenty bushels a bumper crop have raised this year thirty to thirty-five bushels of wheat, and that planted to oats has raised 60 to 70 bushels per acre. The wheat has only barely started to move, so that the monthly earnings since the close of the fiscal year have not begun in the slightest to reflect the revenue which the road will earn from this year's crops. The less direct result which will come because of the traffic created by the prosperity of the farmers will be felt for two or three years.

The following table shows the principal figures for 1915 compared with 1914:

	1915	1914
Average Mileage Operated.....	10,053	9,684
Freight Revenue.....	\$63,953,799	65,315,755
Passenger Revenue.....	17,952,428	18,961,225
Total Operating Revenues.....	91,435,374	95,613,700
Maintenance of Way and Structures.....	10,377,185	10,722,100
Maintenance of Equipment.....	13,737,535	13,625,096
Traffic Expenses.....	1,756,801	1,799,621
Transportation Expenses.....	35,697,951	36,848,934
Miscellaneous.....	722,635	778,716
General Expenses.....	1,862,939	1,664,079
Transportation for Investment—Credit.....	2,183,355	2,548,245
Total Operating Expenses.....	61,971,701	62,690,301
Taxes.....	4,746,721	4,106,557
Operating Income.....	24,716,952	26,606,555
Gross Corporate Income.....	28,366,665	30,081,656
Net Corporate Income.....	11,968,283	15,476,286
Dividends.....	13,951,711	13,928,976
Surplus.....	*1,983,428	1,547,310

* Deficit.

HOCKING VALLEY

THE Hocking Valley was formerly owned jointly by five trunk lines, but control of it was bought in 1909 by the Chesapeake & Ohio. The company operates 352 miles of road running from the Ohio coal fields to Toledo. It has outstanding \$11,000,000 stock, of which the Chesapeake & Ohio owns \$8,825,800. A part of the Hocking Valley and the Toledo & Ohio Central, which is controlled by the New York Central, is operated as a double-track system, loads moving on one line and empties returning on the other. Heretofore the interchange of freight between the Chesapeake & Ohio and Hocking Valley has been over the Kanawha & Michigan, but, as mentioned in the comments on the Chesapeake & Ohio's annual report, printed in this issue, the Chesapeake & Ohio has sold its half interest in the Kanawha & Michigan and is now building an extension which, in conjunction with trackage rights, will give it a direct connection with the Hocking Valley.

Most, if not all, of the roads running north and south and serving the lakes will probably show a falling off in earnings due to the business depression of last year. In the case of the

dec
was
43.8
the
125
A
cash
of t
sider
TH
in 1

Aver
Fre
Pas
Total
Mai
Mai
Tra
Tra
Mis
Gen
Total