because most of them are still permitted to earn and retain dividends. But their borrowing power has been cut down until it suffices only for hand-to-mouth improvement. Their credit must be so far restored as to make it equal to carrying forward the creative and constructive work which we have seen to be a condition of continued national growth. How does their record for trustworthiness stand? What have they done to show themselves fit for that larger liberty of action which is indispensable if they are to perform all the functions belonging to the proper conduct of their business?

The railroads of the United States are entitled to both confidence and relief because they have not abused their trust in the matter of capitalization. While, to make possible the raising of money, stock-bonuses undoubtedly were given in their earlier history, it is true of them as a whole today that they have by far the smallest capitalization per mile in the world; and that they have kept their capitalization low by using for betterments millions of earnings which anywhere in Europe would have been handed over to stockholders, leaving the cost of improvements to be charged to capital account. This is one of the best-established facts in railroad history, though few people yet realize how great is the difference in our favor.

The statistics of railway capitalization, as given by the Interstate Commerce Commission, are, unfortunately, not always computed according to the same rules. This weakens or destroys their value for comparison. A change of statisticians may involve a change

of method. However conscientious the motive, the result alters relations which should be constant. Thus the official railway capitalization in 1909 was \$59,259. In 1910 it is returned at \$62,657. But the increase is chargeable mostly to changes in the assignment of capital stock to one account instead of another; and one such change alone operates to increase the average capitalization \$700 per mile for the entire United States. "Manifestly", says the Statistician of the Commission in his report, "a figure so constructed should not be subjected to the burden of sustaining any very weighty conclusions". The Bureau of Railway News and Statistics estimates the capitalization of 1911 at \$59,345 per mile; probably \$60,000, in round numbers, represents about the average actual capitalization today. This figure is to be compared with the capitalization per mile in other countries, as shown in the following table:

United Kingdom	\$275,040
England alone	\$314,000
Germany	\$109,788
France	\$139,237

The increase of capitalization per mile of railroad in England and Wales for the nineteen years between 1890 and 1909 was from \$255,073 to \$328,761, or \$73,688; against a total capitalization for all the roads in the United States in 1909 of \$59,259. It exceeded our total capitalization by \$14,429 per mile. The average annual increase for the nineteen years has been \$3,873 per mile, exceeding the entire annual net earn-

ings per mile of railways in this country during the corresponding period. Our capitalization per mile is from one-half to one-fifth that of European countries; partly because the initial cost of construction was greater there, but largely because of a fixed difference in policy. The American railway makes improvements so far as possible out of earnings or surplus, leaving capital account to carry only new construction. The European road distributes earnings among its stockholders, and issues new capital to provide necessary betterments. The difference accounts for the sharp contrasts of the figures presented above.

The American policy is in the public interest, because it tends to keep fixed charges down. A management can take its own time about replacing a surplus used for improvements. When the money has been procured by issuing new bonds, the interest on these is a mandatory charge and must be added to the total to be raised annually from rates. So far as the public is concerned, the American policy is far better. And it should be remembered that it became the American policy by choice, not of legal compulsion, at a time when managements had a liberty of action denied to them now. It would be an ironic turn of affairs if this policy, deliberately followed of their own option by railroad managements through the whole history of American railroading, at the expense of the stockholders and because it favors the rate-paying public, should be reversed, and the burden transferred to the people's shoulders as a consequence of regulations prescribed

by the people themselves. At present it seems not improbable that this will come true to some extent. A capitalization of \$60,000 per mile will not transact the business of the country. On all trunk lines and whereever population becomes dense and traffic heavy, capitalization will have to be made larger for new facilities and double tracking. The heavy amounts required to provide terminals must also be charged to capital account. With wages and material as high as they are now, billions will be required. If additional money must be borrowed for the less permanent improvement of which I shall speak presently, the country will eventually have to carry a capitalization more nearly approaching that of Europe; and, as a necessary corollary, rates will rise to a corresponding level.

The railways are entitled to confidence and relief because they have displayed efficiency in the conduct of their business. This is just as marked as their relatively low capitalization. The figures already given show an increase of traffic in a year about five times as great as the increase of equipment and eleven times the increase of mileage. Yet the machine has been hauling its load, because efficiency has been developed. Heavier rails, larger engines, cars of greater capacity, increased train movement and the full utilization of equipment have kept business moving. The density of traffic in England, France and Germany should be as much greater than in the United States as the density in the Middle exceeds that in the far Western states. Yet here are the facts:

Ton Miles Per Mile of Road

France	496,939
United Kingdom	529,622
Germany	827,400
United States (1910)	1,071,086

It is clear that our railroads have been capably managed, and that the resources and powers entrusted to them are being used to the highest business advantage. How the money they spend is being employed is shown by the fact that our railroads move 272 ton miles of freight per dollar of net revenue, where the United Kingdom shows only 58, Germany 172 and France 88. For honest and efficient conduct our railways have no equals in the world. By this supreme test they declare their fitness for the gigantic work that still remains to be undertaken.

Not only, as I have shown, have they not charged to capital the cost of improvements covered by stock and bond issues in other countries, but they have shared their gains liberally with the people through rate reductions. It has become common to think of the progressive lowering of rates, while all other charges are rising, as the work of legislative compulsion. On the contrary, many of the most important reductions made in the past were voluntary. These are the lowering of charges on the great staple products of the soil. This has made settlement possible. It has made it possible for the farmer to realize the benefit of high prices for his crops. It has doubled production again and again. It has made possible the movement of lumber from the

Pacific Coast to the Middle West and even the Eastern markets. It has become a definite policy. And it has left in the pockets of the people an enormous amount of money that would have gone to the carriers or at least been shared by them if they had fought against cheap transportation for the farm instead of fostering it. If the freight and passenger rates in force on the Great Northern system in 1881 had remained unchanged until 1910, there would have been collected from the public \$1,267,411,954 additional. This amounts to more than eight times the average par value of its outstanding stock and bonds in the hands of the public during the same period. That is to say, if there had been no rate reductions on that system during the past thirty years, it could have paid off its entire capitalization every three and three-quarters years. If railroad rates in the United States had increased as much in proportion as the prices of commodities and the wages of labor between 1894 and 1909, the country's bill for transportation for those fifteen years would have been over seven billion dollars more than it was.

The railroads, then, have proved themselves competent and trustworthy. But if they are to furnish the necessary additions and provide new terminals, without which the traffic of the country can no more continue to move than a derelict can voyage from port to port, the money will not come, as a magician catches coins, out of the air. It must be either earned or borrowed. It seems clear to any one familiar with the conditions and requirements that both resources must be

drawn upon. First capitalization must be materially enlarged. But the railroads must be able to show that they can earn a fair return before they can add to the principal of their debt. The very fact of additional capitalization involves additional fixed charges. The investor must be assured that such earnings will not be prohibited by the law before a loan can be placed at a bearable rate of interest. And the higher the rate, the greater must be the future charge on traffic to meet it. The country comes to a stop before a financial "no thoroughfare", from which no exit can be found save through a relaxation of the rigid and hostile prohibition of all rate advances that now absolutely negatives the proper and necessary expansion of traffic agencies in this country.

The theory of encouraging home industry has prevailed in this country during the greater part of our national existence. Import duties averaging 41.22 per cent were levied in 1911. The advocates of the system claim this is done to protect American Labor. Our manufactures are protected as a matter of national policy. Transportation costs the public from one-third to one-half as much here as in Europe. This cheapness is not purchased at the cost of the workingman. In 1910 the average daily earnings of railway employes in the United States were more than twice as great as in the United Kingdom, and two and three-quarters times as much as on the Prussian-Hesse system in Germany. As employers of labor and also as producers of a commodity that everybody uses directly or indirectly,

paying that labor more than it receives anywhere else in the world and supplying that service for less than is charged anywhere else in the world, the railroads deserve a public consideration not extended to them now.

Second, the railroads should be permitted to earn and hold a surplus equal to fifty per cent of the amount they pay out in dividends, to be held for emergencies and applied to improved facilities. There are many expenses, and new ones constantly arising, that must not be added to capital charge unless rates are to be made that the public cannot and ought not to be asked to bear. In addition to the heavy demands of the ordinary growth of traffic, there are many extraordinary expenses. Public authorities do not hesitate to order the railroads to provide additional equipment. This, being only partially under the owner's control, is soon scattered over the country. The weaker roads prefer paying a per diem charge to buying for themselves. This compels the stronger roads practically to provide new equipment for the whole country and pay the cost of it from their own resources. Grade crossings must be eliminated both in the cities and in the country. ordering of these is held to be a legitimate part of the police power of the state, whose exercise is unlimited. To raise or lower tracks at a single city may cost millions of dollars. This class of expenses grows very rapidly in the United States as population becomes denser. Shall we capitalize them also, as has been done abroad? Safety appliances must be adopted. Ingenuity is adding yearly to the number of these; and the public demands rightly that they be put into use as soon as their value is demonstrated. But all these things take money—and a lot of it.

Steel cars are a good illustration of this kind of expense. They are coming into general use, and it has been proposed to make their purchase and employment compulsory even before their benefits have been fully proved. To buy them is a big expense, but that is only the beginning. A train made up of them is sixtyfive per cent heavier than one composed of old style cars. More trains must be run to render the same service. Tracks and bridges must be strengthened. So the cost of service is increasing all the time through improvements that the railroads are just as anxious as the public to adopt. Every one of these improvements costs money. Very few of them produce one dollar of additional revenue. Yet the railroads must pay their bills or go into the hands of a receiver. Such an increase of rates as will cover these expenses; the accumulation of at least such a surplus as will furnish funds for these daily demands in the domestic economy of the railroads, must be authorized, unless traffic is to decrease, transportation facilities to grow worse instead of better, or capitalization to be increased until any rates that the people can pay will fail to cover the fixed charges of the common carriers.

An extraordinary doctrine is now being propounded in many quarters. It is held that the accumulation of a surplus is evidence that rates are too high and ought to be lowered; just as if the man who earns, saves and puts a dollar in bank to meet future contingencies thereby admitted himself guilty of either dishonesty or extortion. It is held that a railroad has no right to receive or enjoy income derived from any other source than the operation of its plant. It is asserted that a railroad has no right to the natural increment in the value of its property, though this is not denied to any other corporation or to any individual under like circumstances. It has been attempted to apply these principles to the regulation of railway property, stripping it of privileges enjoyed by citizens and other corporate entities under the constitution. But how about the other side of the shield? Does the state recognize and abide by this same doctrine when its own revenue is at stake?

All the earnings of the railroad, from whatever source derived; all the property to which it holds title, no matter how acquired or held, is taxed by the state as the property of the railroad; either indirectly by a tax on gross earnings or directly on assessed valuation. The state has taxed surplus and all improvements made from it just the same as those made from the proceeds of stock and bond sales. Can it do this—can it tax all earnings, improvements made from earnings and surplus without confessing that the holders are entitled to the property and the income from it as truly as the state is entitled to the tax? The rule of fairness and the equal hand of the law should make the obligations and the privileges of the railroad co-extensive. The taxes paid by the railways of the United States in 1910

were about 13 per cent of the total interest and dividends. They were over 25 per cent of dividends alone. That is, the state received from the property one-fourth as much as all the owners of it put together. In the face of facts like these, no just man and no court that regards either law or equity should question the right of the railways to enjoy the natural increase and to earn the normal rate of profit on all the property they hold, no matter how invested or employed.

It is not a political but an economic question that the country has to consider and solve. The adjustment of tariff taxation, the regulation of railroads and all other similar matters over which the legislative power has control and which are essentially economic and non-political are held deliberately within the range of current controversy for the advantage of party politics. So long as they can be kept from a fair and permanent settlement on the basis of economic justice, they will furnish rallying cries for the unthinking of one political party or the other. The country cannot rise to the level of its duty or its opportunity until the scientific knowledge of the expert and the action of the just judge are applied to the settlement of such economic issues.

The American people must soon begin to realize how injuriously they are themselves affected by a game that has been played for so many years with their business prosperity and their future welfare. Meantime the practical questions that I have presented and that grow straight from the root of the present situation remain. The wisdom, the desire for justice, the in-

telligent self-interest of the whole country should be concentrated upon the answer, which is not really difficult to find. The people must first realize that regulation must not be strangulation. Every restriction compatible with the public interest may be applied without impairing the position of the railways, or their ability to continue serving the public; because their interests at bottom are one. It is high time that a rational perception of this identity should put an end to hostile discrimination against the railroad, and a policy be shaped which will permit the railways of the country to lay a broad foundation for transacting the future business of the country, by providing the machinery without which that business cannot be done.

Since the greatest need is larger and better terminals, the process of improvement will be costly. Since the sum to be raised must be reckoned in billions, the railroads, if they are to maintain their wage scales, and their standards of efficiency, must be permitted to charge such rates as will enable them to pay interest on the additions to capitalization representing the money invested in new terminals, and also accumulate a surplus sufficient to take care of the constantly arising demands for additions to the existing plant. Courts and commissions will see that excessive rates are not collected. On the other hand the courts have affirmed the right of the companies to earn a reasonable return on the total value of their property. Between these well-marked lines the railway rate should move, according to the needs of traffic and the development of

the business of the country. Rates either permanently unchanged at the present figure or lowered by compulsion mean, in view of the existing emergency, nothing but ruin. That ruin will not be so immediate or complete for the railroads themselves as it will be for the business interests to which they will no longer be able to give a prompt and adequate service. It will be far-reaching, because its effects will touch every man, however humble, who is engaged in productive industry. If it comes it will be the most disastrous catastrophe in all our business experience. The whole question may be summed up in the simple fact that the business of this country has grown beyond the possibility of being handled by a railroad system costing on an average \$60,000 a mile. The experience of the whole world is against such a proposition.

I do not underrate the importance of other interests or issues, I only give due place and emphasis to this question when I say that it dwarfs by comparison every other that bespeaks the attention of our people. What, in comparison are any of the innovations or interpretations of the national will which have recently formed the subject of a nation-wide and passionate discussion? Across every stream of commerce where it enters a distributing city an obstacle grows higher every day, restraining the impatient tide of the nation's exchanges. It is time for all of us to lay aside prepossessions, hostilities, differences in points of view, and work together for an object infinitely more essential than most of the great enterprises deemed so national in

their scope and benefits that they command not only the sympathy but the financial backing of the government itself.

It is the duty of every business organization, of every business man, of capital interested in safe investment and labor interested in sure and remunerative employment, to help swing the country into line behind the only policy that can help and save them all. No pledge of national credit, no subsidy in cash, no immunity or privilege is asked; only freedom to raise on reasonable terms the capital without which the work cannot be done; implying necessarily freedom to earn on that capital the return without which it will not be forthcoming, and enough additional to make and keep railway equipment and service equal to the progress of invention and improvement and to the just expectations of the people.

No national or municipal campaign, no moral crusade, no commercial or financial adventure or assurance can demand or ought to receive from you and others like you the attention, the study, the energetic support claimed by the imminent and urgent issue which I have tried to present in outline. In a day of big things it looms above them all. The railways, anxious to be active in the upbuilding of the country and the introduction of a coming era in transportation, stand at attention. Will the country give the word of permission and remove the heavy cloud of doubt and depression which has steadily arrested the growth of the nation's commercial facilities?