## The Western Society of Engineers

tures, rather than by floating new capital shares. The London market was then favorable, hence there were made four issues of debentures, totaling £14,000,000 sterling. Of these £12,000,000 were taken over by the Japanese Government in payment for its holding of new shares. The remaining £2,000,000 were redeemed in 1911. Since that time and up to March 31, 1928, twenty-two issues of debentures were made, all in Japan, excepting only one of £4,000,000, issued on the London market in 1923. Nine out of these twenty-two issues had been redeemed by the end of March, 1928, leaving fourteen issues outstanding, aggregating some 278,000,000 yen.

The fund thus raised has been invested in various enterprises. During twentyone years, the investment in direct undertakings, including the properties taken over by the company from the Government in 1906, aggregated nearly 650,000,-000 yen, divided by percentages as follows:

Railways	37.1
Workshops	1.3
Steamships	0.7
Harbors	9.2
Coal Mines	16.0
Iron Works	3.2
Public Works	25.5
Other Projects	7.0

The average of expenditures against receipts for two decades is 82 per cent, the annual net profit in that time having increased from two million yen to thirtysix million yen. The railways, harbors, and coal mines bring in large profits; but the other investments of the company are operated at a loss, as shown by the following table, which gives the total profits and losses up to the end of March, 1928:

Properties	Profit and Loss
Railways	· 68,008,345 yen
Harbors	
Coal Mines	9,748,300 yen
Iron Works	— 157,542 yen
Hotels	— 264,084 yen
Local Public Works	-13,006,211 yen
Interest on Deposits	
and Loans	—15,121,767 yen
Sundries	— 356,400 yen
Overhead Charges	.—11,482,936 yen
Depreciation Fund for	
Debentures	—2,063,543 yen

From this table it is evident that the great bulk of the net profits comes from the railway system, and that the latter carries the losses from a number of other ventures, all public expenditures, and the interest on borrowed money. In many cases the so-called "losses" are intentional, for the company incurs them as a matter of policy—for instance, in the operation of its excellent hotels that, from an economic standpoint, are too elaborate for the limited number of guests.

During the twenty-one years of its existence under the Japanese management, the railway system shows a ratio of only forty per cent for operation compared with the receipts from traffic. This record is a high tribute to both the ability and the honesty of the company's management, and stands as a brilliant example of economic railroading for the entire world.

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