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New Developments In Financing Carrier and Terminal Equipment

I. History

There have been many new developments in financing equipment and terminals in the last 20 years in the railroad and trucking industries. As equipment financing has had its longest history in the railroad field and it is there that major types of financing were pioneered, it would be profitable to consider this background in trying to anticipate new ideas. The history of railroad equipment financing has been one of many basic changes in the process of finding solutions to special situations as they occur. There have been a good many such special problems and only recently—in July 1962—the Internal Revenue Service gave the answer to one of the worst of these when it published new depreciation schedules which will bring depreciation on railroad equipment into line with a reasonable economic life. This latest development can be a major milestone in financing a rapid modernization of the railroad car fleet.

For years there has been a continuous demand for new equipment, with requirements varying in volume depending on good or poor general business conditions. To make equipment obligations readily saleable at reasonable cost to the borrower, it was desirable that the obligations be secured by a first lien on the equipment. This presented difficulties in the railroad industry because almost all railroad properties were already pledged under first liens, and there was the danger of equipment becoming involved in the after-acquired property clause of outstanding mortgages. Therefore a special type of financing device was required—one which would provide a first lien,—or (later under purchase-lease agreements)—a clear title on each lot of new equipment.

Railroad equipment is fairly standard as to types and is or can be used on practically any of the standard gauge railroads of the country. Therefore, as it is not necessarily tied to any one property in its use, under some circumstances, its potential value as pledged security can be greater than the credit of the owner road would indicate.

In case of a receivership, railroad rolling stock is easily identifiable and can be moved easily and sold to other roads. Under the Bankruptcy Act as amended in 1935 the owner's right to repossess equipment leased or conditionally sold is not affected by the provisions of Section 77. Further, equipment obligations are not subject to modification under the Mahaffie Act.

The gradual development of the distinctive investment merits of equipment financing has accompanied a unique record of repayment of principal and interest. In the many railroad reorganizations of the 1930s and 1940s, holders of equipment obligations received full repayment of principal and

**The Equitable Life Assurance Society of the U.S.*

interest with two exceptions (and with some delay in a few cases). The only exceptions to this record were a Florida East Coast issue on which was repaid only about 70% of principal and a New York, Ontario and Western issue on which was repaid about 62% of principal—without including accrued interest in either case.

The result of the excellent record for equipment obligations has been that right up to the present almost any road has been able to finance new equipment through a conventional Philadelphia Plan equipment trust with a 20% down payment and serial payments of the balance usually over a 15 year period.

Ever since the depression of the 1930s, the railroads have taken the largest part of their new money requirements out of earnings and most of the balance from equipment financing. The poor earnings records of many roads in recent years have made long term railroad bonds relatively unpopular with investors so that there have been very few new issues lately. This factor combined with large reductions of debt through the reorganizations of the 1930s, and the dependence on equipment financing has changed materially the proportion of long term railroad debt to equipment debt. On December 31, 1929 for example—equipment debt of Class I roads at $982 million was about 9% of the total. As of 12-31-61 equipment debt of Class I roads at about $2½ billion was 28% of total debt, and all other funded debt at about $6½ billion was 72% of total debt.

II. Equipment Trusts

Until about 1940 by far the greatest part of railroad equipment financing was done on the basis of the Philadelphia Plan of equipment trust financing. Equipment trust certificates were developed to give the holder a first right to specific railroad equipment free of the after-acquired property clause of railroad mortgages.

In a typical case of equipment trust financing, 20% of the cost of the equipment is paid in cash by the railroad and title is given to a trustee which in turn (under the Philadelphia Plan) leases the equipment to the railroad, usually over a 15 year period. Rental is payable to the trustee under the lease in amounts which will repay the 80% balance due on the equipment in equal amounts (usually semi-annually) plus interest (here called dividends) on the outstanding balances. When the balance is fully paid off title to the equipment goes to the railroad. The trustee certificates, which are sold to the investor, are issued against title to this equipment, the lease agreement with the railroad, and the guarantee of the railroad as to payment of principal and dividends.

A ready market was found for equipment trust certificates in savings banks, insurance companies and other institutions including pension funds in recent years. Especially for such institutions as savings banks the serial maturities are particularly adaptable because they have become a source of regularly available funds. Some of the states included in their bank law provisions that equipment trust maturities must not run beyond 15 years and there must be at least a 20% equity for such issues.

With this ready market for prime securities the railroads of the country from 1950 through 1960, issued annually anywhere from over 150 million to over three hundred thirty millions of new equipment trust certificates. In 1961 the amount dropped to $112,500,000.

Equipment trust financing had several shortcomings. One situation in particular limited the volume of financing by this method. Since 1929, with the exception of World War 11 years, railroad earnings have been inadequate. As one major result the roads have not earned enough to be able to afford a 20% down payment on anywhere near as much new equipment as they needed. In addition, until recently, depreciation charges on equipment—based on a 25 or 30 year life—have been so low that there was further dilution of cash flow because of lack of protection from income tax through adequate depreciation charges. Under equipment trust financing the 80% balance of cost of the equipment, after the cash payment, was financed over a 15 year period. Consequently whereas full cost of the equipment had to be paid during a 15 year period only 60% of it (4% depreciation each year for a 25 year life) could come from earnings before income taxes.

The other 40% would be from earnings after taxes—or at a 52% tax rate,—payable in $2.08 dollars. Thus purchase of a $10,000 car would require earnings before taxes of $14,320 in 15 years,—i.e. $6,000 from funds earned before income tax deduction (60% straight line depreciation in 15 years) and $8,320—from taxable income,—when $2.08 would have to be earned for every dollar available after 52% tax.

Because of lack of sufficient tax free cash flow for both a 20% down payment and repayment of the 80% balance over a 15 year period, there was not anywhere near an adequate rate of replacement of old freight cars so that by January 1, 1950 nearly 617,000 cars—more than 35% of the car fleet—were over 25 years old.

III. Conditional Sales

Since 1940 a growing need for new equipment and limitations inherent in the Philadelphia Plan equipment trust certificates have caused railroads and large investors to develop other methods of equipment financing. This move to a different type of financing expressed itself first in the 1940s in the form of widespread adoption of Conditional Sale Agreements. A substantial amount of this type of financing has been done in recent years and for 10 years through 1961 total conditional sales financing was over 75% as great as equipment trust financing in the railroad field.

A typical conditional sale transaction usually involves two or more related agreements;—the first of these is the conditional sales contract by which the railroad purchases specified equipment from the builder (vendor) and agrees to make payment for it over a period of time—usually 15 years. Title remains with the vendor until full payment is made. The second agreement is the purchase and assignment of the vendor's interest in this contract to the lenders or investors. This assignment can be direct to the lender or to the lender's agent. In the latter case under an escrow agreement the lenders would pay the funds to the agent, and the agent would agree to hold title to the equipment for the benefit of the lender. The repayment of the loan—usually over

a 15 year period is ordinarily in equal amounts and such payments include interest on outstanding balances. At completion of full payment of the cost of the equipment, title goes to the railroad.

Advantage of a Conditional Sale Agreement over an equipment trust are: (1) Equity required is sometimes only 10% of cost, and sometimes there is no equity requirement. (2) These contracts are usually taken in whole or in large pieces by institutions and sometimes without a trustee or agent, thus reducing financing costs. (3) Delayed deliveries of equipment are acceptable and payments are made as each lot is received. (4) The I.C.C. does not consider these contracts as "securities" and no competitive bidding is required thus allowing each transaction to be tailored to fit particular needs.

IV. Purchase and Lease of Equipment

The provisions of Conditional Sales Agreements still did not meet all the requirements necessary to obtain substantial amounts of new equipment. In particular (1) they did not provide 100% of financing in most cases and (2) they helped in no way to solve the problem of inadequate depreciation based on economic life (i.e.—the ability to replace equipment out of earnings before income tax).

While car shortages in this country in boom times had become a national problem of major importance, even this numerical shortage seemed minor compared with the very serious shortage in new or modernized cars. As of January 1, 1950 the condition of the car fleet was extremely serious. In spite of the fact that over 35% of the cars were more than 25 years old, there had been new car orders in 1949 for only a little over 6,000 cars.

To meet these pressing demands, the Equitable announced its purchase-lease plan for railroad equipment in March 1950. This plan was tailored to meet the two major problems, (1) lack of funds for cash equity and (2) lack of income tax protection because of inadequate depreciation charges.

The plan was based on two interdependent documents—first a 15 year lease of equipment to the railroad under which rentals would repay the lessor the full amount of its investment plus a return and (2)—a manufacturing agreement between the lessor and the equipment manufacturer whereby the purchaser—(lessor) would buy the equipment to be leased to the railroad. In effect some equity was provided the lessor by the fact that it paid 90% cash for the equipment upon delivery of title and paid the additional 10% balance out of rentals in the early years of the lease. Because rentals were charged fully to the cost of the road's operations, the railroad paid no cash equity and in effect had 15 year depreciation. The railroad was liable for full maintenance of the cars, for taxes and for any other liabilities of operation.

At the end of 15 years the lessee has the option to continue to lease the equipment for up to an additional 10 years at a very nominal rental or to return the equipment to the lessor. Title to the equipment remains with the lessor.

To date the Equitable has purchased and leased $225,986,000 of equipment including 23,417 railroad freight cars, 507 diesel locomotives and three

tank barges. Since 1950 others have adopted this basic plan of purchase and long term lease of equipment.

V. Railroad Freight Car Company

In an effort to find a method for rapid modernization of the car fleet, about three years ago it was proposed that a corporation be formed by a group of railroads which would be the initial stockholders. The purpose of the corporation would be to expedite the financing and installation of new freight cars in large numbers as quickly as possible.

Initially the corporation would have a small capitalization and be used for the purpose of purchasing and holding title to new freight cars purchased from car builders and leased on a 15 year basis to individual roads. Rentals during the initial 15 year period of the lease would be sufficient to repay the original cost of the car plus a return on the investment. The cost of the car could be financed by institutions, by means of conditional sales or leases to the corporation, with an agreement that in case of any defaults the owner roads would take over liability for, or assume the lease on, a small pro rata share of the cars involved. Unfortunately no recent progress has been reported on such a company.

VI. Chattel Mortgages

Chattel mortgages are not generally used in equipment financing because in case of reorganization the statute does not specifically grant the mortgage holder the same freedom provided lessors and the holders of conditional sales, to remove the property from the bankrupt estate. For this reason chattel mortgages on equipment are not as attractive to investors as conditional sales or leases and are used only in special circumstances—usually to pledge some additional collateral under a security.

VII. Basic Problem

The railroads and railroad investors have worked for many years to obtain realistic depreciation and the 14 year depreciation schedule for rolling stock recently granted to railroads is a major turning point which should expedite to an increasing degree their ability to modernize their car and locomotive fleets. As freight cars and locomotives represent about 90% of total equipment, our comments can be confined to them.

As of 1-1-62 there were only a little over 1,606,000 freight cars in the Class I railroad interchange fleet—a new record low. Of these over 386,000 cars—(24%) were over 25 years old. There has been a decline of over 150,000 cars in the last 10 years—but not because of lack of demand. Car shortages in this country in boom periods continue to be a serious national problem, and in case of a national defense emergency might be disastrous. In addition loss and damage on freight for 1961 at $112,432,000 are near an all time high. This appears to reflect the large proportion of old cars. The industry agrees it could use at least 100,000 new freight cars a year (about $1 billion worth) yet there were only 8,783 new cars on order at the end of September 1962.

Railroad representatives have stated also that an additional 1,200 locomotive units (or about $240 million worth) are needed annually. While locomotives have been almost entirely dieselized, this trend started over 15 years ago and there are about 9,700 diesels over 12 years old. The technological improvement in diesel locomotives has been so great in the interim that some roads are turning in the 12 to 15 year old locomotives for new or "up-graded" units. The newer locomotives have about 1/3 more power and considerably more efficient operation than those of 12 to 15 years ago.

Thus the industry's requirements would be approximately $1-1/4 billion* of freight cars and locomotives each year. If the roads could get 100,000 new cars a year it is estimated it would take about 7 years to modernize the present fleet only to the point where no cars would be over 25 years old. Expenditures of that size would put the railroads in a position to get more rapidly the technological improvements in new cars including such items as roller bearings shock-proof cars, mechanically refrigerated cars, larger capacity cars, and lighter weight cars, specialized cars such as those for automobile parts, and wide door or even full length side loading box cars. It would also reduce currently large repair bills, damage claims, cost of hot boxes and wrecks caused by old cars and would give much better service to shippers and greater ability to meet competition. The result would be higher railroad revenues and lower costs. Aside from the direct benefits to the railroad industry, 7 years of $1 1/4 billion equipment business would give a substantial boost to steel companies, equipment manufacturers and suppliers, and employees. The fact that there are still so few cars on order compared to the actual needs of the railroads is undoubtedly because the industry as a whole has not yet changed from the logical policy of many years which required that it await better earnings periods to purchase the new equipment, and then only in limited amounts because of the greatly restricted cash flow available to it.

Prior to the recent revision of depreciation guidelines and rules to a 14 year life on railroad rolling stock, the Internal Revenue Service and the Interstate Commerce Commission considered the economic life to be anywhere from 25 years to over 30 years. Under the old schedules annual depreciation on all equipment of Class I roads for 1961 was only about $481,000,000 of which a little over $200 million was on freight cars and a little under $200 million applied to locomotives. By comparison the estimated amount of total equipment maturities due within one year (due in 1962) was approximately $300 million. It is generally considered that equipment maturities will be paid off from the amount of cash flow protected from income tax by depreciation charges. Thus about $300 million of the $480 million depreciation charge for 1961 would be taken by the already outstanding equipment maturities of that year. This would leave only a balance of $180 million available for all down payments on new equipment and for additional equipment maturities contracted for by any new equipment purchases and financing.

It has already been pointed out that the roads could use about $1-1/4 billion worth of new freight cars and locomotives annually. Even a 20% down payment on this equipment would require $250 million each year and thus the annual down payment requirements alone would exceed by $70

*About $350 million of freight cars and locomotives were acquired in 1961.

million the income protected from taxes on depreciation on all equipment. Hence under the old depreciation rules, acquisitions of proper amounts of new equipment were impractical—even under a very long term modernization program.

In addition to the $250 million, 20% down payment, the roads would have to contract each year for an additional 80% balance—or—$1 billion payable over the ensuing 15 years—at the rate of about $66 million a year. By the end of 7 years these additional equipment maturity obligations would total $462 million annually which, together with the $250 million down payment, would give an overall total of $712 million annually—far in excess of any income tax exempt cash flow heretofore available, (and with no consideration of maturities on currently outstanding equipment obligations).

The new depreciation guidelines and rules issued by the Internal Revenue Service would allow income tax free cash flow for Class I roads, adequate for this program. In addition to granting a 14 year depreciation life for new acquisitions, the new rules allow depreciation over a 14 year life on already existing assets. The depreciation base for Class I freight cars and locomotives (11-30-60 latest available) was $10,670,000,000. If it is to be assumed that about this amount would be retired during the next 14 years, the annual straight line depreciation charge would be about $762 million. This amount of income would be immediately free from income tax deductions—about enough cash flow to pay all current equipment maturities, make a $250 million down payment annually on 100,000 freight cars and 1,200 locomotives, and cover increased equipment maturities caused by the large new acquisitions.

It will be pointed out immediately that many railroads are losing money, therefore, all Class I roads are not paying income tax, so total Class I figures don't apply. That comment is certainly true. The year 1961 was one of the worst for railroad earnings, and of 106 Class I roads reporting, only 77 reported net income. Class I roads reported $382 million net income; the 77 profitable roads reported net income of $524 million and the others reported a net loss of $142 million. Of the 77 profitable roads 18 reported either no Federal income tax accruals or Federal income tax credits. The balance of 59 roads paid Federal income taxes of $246,274,000, a substantial part of which could have gone into a down payment on equipment acquisitions had the present depreciation schedules been in effect.

The already available types of equipment financing—purchase-lease agreements, conditional sale agreements and equipment trust certificates when combined with the 14 year depreciation schedule should make possible an immediate start to gradually increase the volume of acquisitions of new freight cars and locomotives for the industry.

Without the use of a crash program such as the railway car company mentioned, these purchases may start slowly but should be accelerated in the early stages by increased buying of equipment by the roads already showing good earnings. This trend has already started. In announcing a recent order for 1,000 hopper cars, *Norfolk and Western* stated that "authorization of the order was encouraged by the new U.S. Treasury Department railroad equipment depreciation schedules and the investment tax credit provisions of the Revenue Act recently passed by Congress." The *Santa Fe* was also encouraged by these

rules and in announcing a 50% increase in the road's new equipment outlay for 1962 the management said the depreciation guidelines were the clincher. Santa Fe's President hailed the new rules as remedying a situation which has plagued the industry for years. He indicated that application of the new rules allowing earlier depreciation deductions would mean an estimated $16 million to Santa Fe's 1962 income tax bill. *Gulf, Mobile and Ohio* in a recent announcement of expenditures of $9,350,000 for new equipment and upgrading old equipment, stated that while the full effect of the new depreciation guidelines had not been determined "they had added impetus to Gulf, Mobile and Ohio's plan to modernize its motive power and freight car fleet and have made it possible to accelerate this program."

Without announcing a direct tie-in with the new depreciation schedules other roads which have accelerated equipment buying since August have been Louisville and Nashville, Illinois Central, Missouri Pacific, Union Pacific, Seaboard Air Line, Chesapeake and Ohio, and Southern Pacific Company.

Trucking Companies

Before World War II the common carrier trucking industry was an important part of the public transportation system. Prior to 1940 most of the common carrier truckers had been built up by one or two individuals and ownership of these companies was held by them and their families. By 1940 10% of all commercial intercity traffic was carried by motor vehicles but this proportion had increased rapidly since the 3.9% reported in 1930. The trucking industry was absolutely vital to the growth of the economy particularly for relatively short hauls including not only retail delivery but intercity.

Since World War II the trucking industry has grown tremendously and in 1961 represented about 23% of commercial intercity ton miles. This growth was in conjunction with construction of high speed turnpikes and the Federal Highway Program, the development of bigger, faster, more efficient diesel tractors and other equipment and the fact that both industry and residents have decentralized rapidly away from population centers. Unfortunately the common carrier trucking companies could not take full advantage of the large growth of the industry because about 2/3rds of trucking was soon taken over by private and other exempt carriers, in addition to which illegal-for-hire carriage became a major factor. For these reasons the financial growth among most of the common carrier trucking companies was slowed down and until very recently there wasn't much public financing. However, by now many of the strongest of these companies are becoming firmly established financially with increasingly long records of good earnings. For the most part they continue to finance their equipment with commercial banks with maturities running from 5 to 7 years. Some of them have done secondary distribution through sale of some of the stock of the company's founders. Others have enlarged their equity through public sale of common stocks for new money and some have done long term financing.

Until very recent years most of the long term financing was through straight mortgage loans for 2/3rds of the value of terminal properties. More recently bond issues have been sold which, while for the most part they are secured by terminal properties, are in part dependent upon the borrower's earnings

record. As these earnings records continue to improve over a period of years it can be expected that fuller amounts will be loaned against appraised values of real estate and restrictive provisions of these bond issues will become less severe. Eventually a growing number of these companies can look forward to unsecured long term loans with restrictive provisions which will protect the lenders or investors against dilution of the company's assets.

While only about 40 of roughly 1,100 Class I motor carriers have done public financing so far, this proportion could increase rapidly if as now seems probable some of the industry's major problems can be alleviated. For instance severe and unfair competition caused by illegal-for-hire carriage and wide agricultural exemptions can be reduced through stricter policing and corrective legislation—and the earnings of common carrier truckers should be enhanced materially, thereby.

Most of the basic types of equipment and long term financing developed in the railroad field can be used in truck financing with, of course, certain variations such as much shorter terms, i.e.—in accord with economic life,—for the equipment. An increasing amount of new funds going into common carrier truckers are for the relocation and construction of new and more efficient terminals. As so much of the trucking business is LTL, handling costs at terminals are high and more efficient terminal operations are, along with more modern equipment, a major area in which to cut costs.

Increasing requirements for long term funds on the part of common carrier trucking companies are expected to continue, to the benefit of the companies, the shipping public and investors.

In summary—at this moment the stage is all set for a very large increase in railroad equipment buying and financing, and for increasing amounts of public financing in the trucking field. In the case of railroad financing, particularly because of reappraisal and reform of depreciation allowances, the atmosphere is more conducive to such financing than it has been for more than a generation. In the case of the trucking field, many common carrier truckers are in the process of building up a long term record of good earnings which will enable them to do public financing for the first time.

In railroad equipment financing all the tools are now available for such financing by almost any railroad. (1) For the profitable railroads which can afford Philadelphia Plan financing with its 20% down payments and 15 year repayment, there is no longer any problem of sufficient cash flow to cover full cost of equipment. (2) For the less fortunate roads with poorer earnings there are available conditional sale financing and the purchase lease,—with 14 year depreciation protecting the roads' cash flow. (3) Even for most of the marginal roads it is probable that a purchase lease agreement could be worked out on a basis satisfactory to all parties.

In the case of trucking companies—as the stronger companies emerge with long records of good earnings some of them may expect to do long term financing on an unsecured basis with protection to the lender in the form of restrictive covenants against dilution of the company's assets. Another type of financing and for the moment the largest one will be in long term financing secured by terminal and other properties.

Speaking as a representative of one institutional investor, we are now looking forward to an increasing volume of equipment financing in the railroad industry and long term financing in the trucking industry. The various types of financing now available together with realistic depreciation schedules should make it far easier than ever before for us to help in the modernization of equipment fleets and terminals and we are ready to try to work out transactions based on any of these types of financing which will best suit the needs of the borrowers.