Thesis

on

"The Development of Investment Securities"

C. R. Booz.
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C. R. Boss.
It is the purpose of this thesis to outline the development of investment securities in the United States since the adoption of the Constitution, and to classify the various forms of securities chronologically and according to their nature. The great difficulty in obtaining data has rendered the chronological classification of little or no value. While the comparatively small amount of time assigned has necessarily made incomplete the classification of securities according to their nature, i.e. the agreement between issuer and holder. The reason for this will be readily seen when it is observed, that for every security there is an agreement between the parties issuing it, and the persons receiving it, which agreement as varies with every issue, and the forms of the same are numerous as human ingenuity can make them. This agreement is the salient feature of a security and the name under which a particular security is issued signifies one thing in one case and something entirely different in another. So that little or no dependence can be placed on the name under which a given instrument is issued. It is necessary therefore to know thoroughly each and every form of agreement, in order to make an exact and scientific classification; a knowledge obviously impossible of attainment without a long and exhaustive study such as is impossible in the short time allotted for this thesis.
At this point it might be well to introduce some of the ideas which govern the rate of interest, which investments shall carry; also to outline some of the uses past and present to which the various forms have been put. The ideal of absolute security is the Government. If it were not so, the people could realize no prosperity under it, and according as we depart from this standard of security the risk becomes greater and with the increased risk a higher rate of interest. To-day with government bonds commanding the premium they do, they net the investor but 2-1/2 to 3%. This establishes the borrowing rate. Well known municipal bonds net a slightly higher rate, railroad bonds a still higher rate and so on. That this is an established fact, the following statistics conclusively prove.

In 1853, United States paid 6% interest on its debt.

Prime Business Paper sold for 7%.

1860 United States Government Bonds paid 6%.

Prime Business Paper 6-1/2.

1870 United States Government Bonds 5 & 6%.

Prime Business Paper 6 & 6-1/2.

1885 United States Government Bonds 2.9 to 3.25% net.

Prime Business Paper 3-1/2 - 4%

First order Railroad Bonds 6 to 8%.
If the United States Government borrows at 3% and finds that its obligate at this rate sell at a premium; so long as its credit is unimpaired the tendency of the money market is to approach the same rate of interest.

With the rapid extension of the field for investment there have been changes with regard to the uses of investment securities. At the beginning of the century the only chances for investment, were in United States Government stocks and Bank stocks; then these were bought for what they brought as a return for the money loaned. In the present day, Government Bonds are held in a large measure only by Banks to secure their circulation, and by individuals and corporations who require a large working capital. Rather than to allow a large sum of money to lie idle in the vaults of a bank until needed, the latter invest the same Government Bonds which can at a moments notice realize their full value as collateral security and at the same time afford a slight income. They are also held, because of the clause exempting them from taxation, by many people who wish to escape the Personal Property tax. This is particularly true in Massachusetts where the Personal Property tax is levied on the amount held on the first day of May. This fact accounts for the sudden increase in value of Government Bonds just previous to this date.
The principles which govern the purchase for investment are altogether different from those which direct speculative operations. The investor places his money in a certain stock or bond with the view of obtaining a perfectly safe security, which will pay him a good annual interest; and if his investment is a safe one he should not care to estimate the possibility of fluctuations in the price subsequent to his purchase. The longer a bond has to run the higher will be its price. This fact was well illustrated, in 1872, in the value of United States securities as compared with the national securities of other first class powers.

It would be supposed, that the cause of the additional security offered by registering a bond that the registered bond would demand a higher price; this is not so for the greater availability of coupon bonds for purposes of collateral securities for loans and the demand for them in foreign markets has raised the price of coupon bonds, of exactly the same face value, length of time to run and annual rate of interest, several points higher. In 1866, 4% more was demanded for a coupon bond of the same issue as for a registered bond.
Classification of Securities.

Investment securities may be classified according to the body by which they are issued, as Government, State, Municipal, and Industrial. This fourth division, which contains by far the greatest numerical value and variety, is still farther divisible into securities issued by Transportation and Production. The use of the term "Government" is to cover all issues, made by the United States Government, of bonds for any purpose whatever. In the same sense the use of the term "State" is applied to those issued by the governments of the various states. By "Municipal" is meant all certificates of indebtedness bearing interest issued by corporations other than the national or state government and includes the bonds of counties, cities, boroughs, townships and school districts. The term "Industrial" is used in its broadest sense and not as it is commonly used to designate the securities of corporations listed on the stock exchange which are not railroads or canals. It therefore includes all forms of securities issued by corporations, other than political, having for the justification of their existence the advancement of mankind commercially and financially.

It will be seen that Insurance Companies and Banks would not fall logically into either of these subdivisions. No sep-
arate class has however been formed before them, as they have never been other than issuers of stock. These two forms of investment might then be disposed of now.

The history of banking in the United States has been fairly well written up and there is little to be said of it except to show the increase in the banking capital. The Bank of North America was established at Philadelphia in 1781, with a capital of $400,000. In 1791 the United States Bank was established with $10,000,000 capital.

<table>
<thead>
<tr>
<th>Year</th>
<th>Banking Capital</th>
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<tr>
<td>1830</td>
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<td>1837</td>
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<tr>
<td>1857</td>
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<tr>
<td>1870</td>
<td>$416.3 mil.</td>
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<tr>
<td>1880</td>
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<td>1890</td>
<td>$615.4 mil.</td>
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<td>1893</td>
<td>$686.8 mil.</td>
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The subject of insurance as an investment has been concisely stated by Mr. J. G. Martin in his book "88 years on the Boston Stock Market." He says: "This class of securities is less known or familiar to the public than either railroad or bank stock. It has its special patrons who keep their eye upon

Authority, United States Statistical Abstract.
it, estimate its value and take up what little offers in the market or at executors sales. Insurance stocks rarely assume a speculative character, and are no particular source of profit to the gentlemen comprising the Board of Brokers. There is always an extra hazard attaching to insurance in the eyes of those not acquainted with the histories of these institutions."

The first companies formed in Boston in 1803.

Government Securities.

The loans of a national government have their origin in circumstances differing entirely and it might be said diametrically from those giving rise to industrial securities; the State and Municipal governments, forming, so to speak, the stages of transition. At the one extreme we have the central government pledging its credit and honor, so that it may carry on war, which means stagnation and often death to much investment property. It is true war frequently gives a tremendous stimulus to some industries, but the increased activity is the result of transitory and unnatural circumstances and is not to be considered as a true step in the development of investment securities. An example of this may be seen in the sudden and enormous rise in value of the "Trunk line" railway stocks due to the diversion of traffic from its natural course and direction by the blockading of southern ports and rivers. At the other extreme are the loans of industrial corporations whose
sole cause for existence is to increase and develop still further the property on which they are made. The loans of states and cities combine the causes of both extremes, issuing partly from industrial enterprise as the Water Works bonds of cities and during the middle of the century, the state aid bonds to railroads and canals and during the war periods loans to aid the central government in the prosecution of war.

Mr. N. C. Adams on "Public Debts" says: "The complete classification of debt paper is suggested by the two following questions: Is there any mention in the contract of the sum of money given over to the government at the time the obligation was authorized? If there is no such mentioned and the contract is simply a promise to pay a yearly or periodically stated sum, the debt is regarded as an annuity; if on the other hand, there is such a mention and he who buys the evidence of debt buys the right to reclaim the amount originally paid, together with an annual payment of interest, the form of the obligation is that of a common note and in this country was first called stock but since the first of the century, bonds.

The second question asks if the contract states when the debt must be paid; and, provided such a statement exists, whether a definite time is mentioned for such payment and definite conclusions prescribed, or whether the whole matter of reimbursement is left to the choice of the government. This consideration of time shows annuities to be divided into three sorts;
those drawn to lapse at some specific time, those drawn to lapse at the death of its annuitant or some stated number of his assignees, called life annuities; those drawn to run in perpetuity or perpetual annuities. Bonds also may be drawn so as to establish what are technically known as time debts, or perpetual debts.* For the other conditions to which they conform each separate loan must be studied for and by itself. An evidence of this fact is the condition of the United States loans in 1870; there were at that time twelve sorts of 6% bonds, five sorts of 5% bonds and five sorts of 7-30's. This was bad, for the market value of the bonds was materially lessened by the confusion arising from the variety.

The form of annuity has had little vogue in the United States, but is very popular in England. The only time it was tried in this country, which was in 1813, it was considered a failure. Time debts are more in favor in this country and a bond averages an existence of twenty years. The sentiment of the people seems to be decidedly against a perpetual debt. The influence of this has been strong in the development of railway and industrial loans and in fact on all kinds of loans throughout the country.

The complete history of the loans of the United States Government may be found in the volume of the Tenth Census on Public Debts, in which is a specially prepared article on United States Loans. It therefore sufficeth to say that the
Adoption of the Constitution took place at a time when the entire country owed a debt of $75,463,476.52. This debt was funded by Hamilton at 6% and 3%.

In 1813,
A loan of $16 mil. at 6%, 12 years time, at 88% of the par value.

1842,
A loan of $8 mil. at 6%, 20 years time, at par.

1847,
A loan of $18 mil. at 6%, 20 years time at 1/8 to 2% advance. (See Foot Note.)

1848,
A loan of $16 mil. at 6%, 20 years time, 3.02 to 3.55% advance. (See foot note.)

1850,
A loan of $5 mil. at 5%, 10 years time, advance.

1858,
A loan of $10 mil. at 5%, 15 years time, 4-1/2 to 7% advance.

1859,
A loan of $10 mil. at 5%, 15 years time, 2-5/8% advance.

1860,
A loan of $7 mil. at 5%, 10 years time, at par.

1861,
A loan of $8 mil. at 6%, 20 years time, 90.15% of par value. (See foot note.)

The further loans of the United States have been summarized in following manner by J. G. Martin in his "88 years on the Boston Stock Market" and from which the above statistics are obtained.
He says: "In the summer of 1861, loans came "thick and fast" to meet the war expenses. More 6's of 1881 were issued ($109, 700,000,) with $139, 315,350 gold Seven-Thirties, and $60,000, 000 of Demand Notes, payable in gold. The Seven-Thirties were three years to run, and eventually converted into 6's of 1881.

Then came the suspension of specie payments, Dec. 30, 1861, and the great $500, 000,000 Five-Twenty loan in 1862-3 which was subscribed for par throughout the country, in sums from $50 upwards. Other loans followed, until the aggregate debt reached the large sum of $2,757,689,571.43.

Will be seen from the foregoing account of the placing of the loans that the credit of the national government had been steadily rising. Financial Chronicle on Nov. 25, 1871, states concisely the sentiment of the country at that time toward its bonded issues. "The well known advantages offered by government bonds as an investment for the capital and funds of financial corporations cannot be equalled, no other bond is so generally and favorably known to the public or inspires so much confidence, and nothing else is so available as collateral for loans or finds an equally good market in the time of panic; for corporations or individuals therefore who are engaged in active business and have frequent occasion to raise money or stand prepared for any financial circumstances government bonds have no equal. But for private investors the rate on government securities under the steady improvement of credit has be-
come too low to make them desirable.

Note 1. There were before this loan of 1847, two small loans in 1843 and 1846 of 10-year 6% bonds.

Note 2. United States 6's had previous to 1848 sold below par; but they remained there a short time only, rising to 20% advance, and afterwards reached 124. The high price obtained for the loans of 1847 and 1848 were due to the establishment of peace after the Mexican War and the return of confidence.

Note 3. The price at which this loan of 1861 was awarded (90.15) was the lowest price at which any bonds were issued, though they afterwards fell to 83 in the public market.
State Bonds and Securities.

There has been in the history of the United States, three periods of State indebtedness or perhaps it may be more correctly stated, by saying, three periods during which state governments borrowed, and each of these periods has a distinct cause for the contracting of loans.

The first period does not properly come within the scope of this thesis, as it has for its starting point the date of the adoption of the Constitution, and the first period of borrowing was brought about by the Revolutionary War. Here the states borrowed to arm, defend and free themselves from England. The total amount of this debt, then equalling $20 mil., was by Alexander Hamilton's financial policy assumed by the general government.

The second period was from 1830-50. It was at this time that the states became partners to the numerous internal improvements which were at that time being carried on by railroad, canal and other companies.

From the assumption of the Revolutionary debts to 1820, no use whatever was made by the states of their power to borrow. But in ten years from that time $26 mil. had been authorized, $18 mil. of it by New York, Pennsylvania and Ohio. From 1830-35, $40 mil. more, while the three years previous to 1838 witnessed an increase of state indebtedness to the amount of
At this rapid rate the increase kept on until 1843 the total liabilities of the states amounted to $231.6 mil.

The crash which naturally followed this wanton use of the borrowing power was commented on in the following terms by the London Times; "America is not the country it is cracked up to be too many speculators and gamblers,—indeed to be plain I look upon it, from Maine to Georgia as one vast swindling shop."

This mania for borrowing was forced on the states by the action of the general government and the strong States Rights movement which at this time was at its height. The veto of the Maysville Road bill by President Jackson brought matters to a climax. In his veto message, he stated the lack, on the part of the general government, of the proper authority to undertake these internal improvements, and because of this they were thrown on the shoulders of the states. These internal improvements were of such a nature as to call for a large amount of ready money and this demand was the occasion for the extensive use of local credit. The Southern States borrowed to establish banks thinking thereby to "create capital"; the Northern States to perfect their canal and highway systems and to aid in the building of railroads. "The consequence" says F. C. Adams, "has been the outlay of quite as much money, if not more than would have been expended on the other plan." By which plan, he means that of the general government.
The rise in value of many state bonds from 1842-44 was exceedingly large.

Ohio 6's advanced from 48-1/2 to 102-3/4.
Illinois 6's from 14-1/2 to 45.
Indiana 5's from 15 to 49-1/2.
Pennsylvania 5's rose in one year from 40 to 68.
Maryland 5's from 50 in one year to 73.

In 1853 Pennsylvania 5's sold at 97-1/2 ex. the dividend equal to par, and Indiana 5's at 101-1/2 in Mar. 1854. The same Illinois bonds which fell to 14-1/2 in 1842 touched par during July 1855.

3rd Period-
During the Civil War the debts of the states rose enormously. Those contracted by the seceding states for the purposes of aiding and carrying on the Civil War, were, it was announced by President Johnson, not to be recognized. The loans of the disloyal and border states fell to a low figure after the war had become an established fact and many of them were almost worthless. Virginia 6's dropped in no time from 89 to 26; Maryland 5's from 97 to 60; Kentucky 6's from 96 to 60.

Even loyal states like Ohio and Pennsylvania felt the effects of the war on their credit and Pennsylvania 5's fell

Authority, J. G. Martin, "88 years on the Boston Stock Market."
from 89 to 63. Massachusetts however, in October, 1865, placed
424,000 pounds loan at 5% in London at such a price that with
exchange and gold at 145 it netted the state more than par.

The efforts of Missouri to regain her credit is inter-
esting. No interest had been paid on her loans since July 1861
and equalled January 1, 1868, $30 mil. The holders of her se-
curities were to have the privilege of exchanging the same and
the unpaid interest coupon for a like amount in Consolidated
Bonds of thirty years time. This consolidated issue to bear
3% for the first four years, 4% for the second four years, 5%
for the third four years, and so on until 9% was reached, thus
making an average interest for the thirty years of 6%. This
was done so that the state might recover from her exhaustion
and the interest charged would not exceed her ability to pay.

Since the close of the war the states have been contract-
ing and paying off their loans, until they have decreased from

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
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<td>1870</td>
<td>$294.2 mil.</td>
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<tr>
<td>1880</td>
<td>$297.2</td>
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<tr>
<td>1890</td>
<td>$228.9</td>
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Authority, United States Census 1890.
Municipal Securities.

"A municipal bond is the form of obligation given by a municipality for value received, in which it acknowledges itself indebted and agrees to repay the bearer at some future time. When a city, town, county or school district— the term "municipality" being used to designate any one of the former— has occasion to build water works, sewers, erect court houses, city halls, schools or make other expenditures for its public good involving an outlay beyond its regular receipts, the law gives it power within certain limits to borrow money by issuing its promises to pay. These promises it pledges itself to meet at some generally definite future time— the written instrument being known as a Municipal Bond." (E. H. Gray on Municipal Bonds.)

There has been since the advent of Municipal Bonds a great change of feeling in regard to them as solid investments, especially with regard to Western bonds and those of smaller eastern towns. During the period of rapid railroad construction prior to the war, towns and cities recklessly pledged their credit to aid these industrial enterprises. This was done to such an alarming extent, and coupled with the ever present question of the legality of the issue, it gave abundant reason for the low esteem in which the issues of municipalities were held.
At present owing to the laws which have been passed in many states limiting the liability and requiring the registration of municipal securities they have risen in the esteem of investors to occupy a position next to government bonds.

Increase of Municipal Indebtedness.

In 1840 Municipal debts equalled $25 mil.

1860 * * * $51 mil.
1870 * * * $515.8 mil.
1880 * * * $822.1 mil.
1890 * * * $906 mil.

It will be seen from these figures that the rapid extension of municipal debts after the war gave rise much doubt as to their value. Western Farm mortgages were considered in 1870 superior to them; but the states seeing the danger which threatened the credit of their minor divisions began legislating to protect them. By 1872 a revulsion of sentiment had taken place and the Financial Chronicle in April of that year says: "Among the attractive investments of the present day which invite the attention of capitalists or perhaps rather of parties having small amounts of money to invest are the town and county bonds bearing a high rate of interest". This was in April, while in January of the same year the same paper had stated; "City bonds are also good though the liability of these to be influenced by fremd in municipal affairs has a prejudicial effect on private
investors. The esteem in which they are held is well shown by the amount which the banks will lend on them as security for loans. Par for government loans, 10% below the ruling price for state and railroad bonds and for municipal bonds a still greater discount. The cause for this sudden change was the passing of laws, in which Missouri and Kansas took the lead, whereby local securities must be registered with the state Auditor and none being valid unless so registered; the state was to forward the interest. Many other states notably Illinois limited by law the amount of municipal indebtedness to 5% of the assessed valuation of the municipality. The "Chronicle" in commenting on these laws says: "These laws for the protection of purchasers of local securities are very important and if well carried out can hardly fail to do much toward raising the credit of Western municipal corporations and will enable them in a few years to sell their bonds at a lower rate of interest.

The first trace on the Boston market of a municipal loan was the one floated in 1823 for ten years at 5%. This was placed at above par and reached in 1824, 110-1/4. After 1845 city bonds began to appear in rapid succession. Chicago is first noticed in 1855 with 6's of 1880 at 85-94. St. Louis in the same year with 6's with a market value of 82-1/2-90.

J. G. Martin in speaking of Boston City Bonds says:
"Boston bonds always specie paying commanded good prices abroad, and have been higher than those of any city in the Union at the same rate of interest; and in 1855 the 4-1/2% sterling were quoted as high as 102. In sympathy with the general fall in sound American securities, lower prices ruled during the Rebellion, but still satisfactory under the circumstances. The city Treasurer succeeded in placing a loan of 800,000 pounds sterling bearing 5% interest in the London market at 87 which with exchange would be equivalent to about 96 with gold averaging 114."

Financial Chronicle Dec. 18, 1869 says: "Our cities as a general rule are in a sound and healthy financial condition, their debts bearing but a very small proportion to the amount of their taxable property, and within such limits as to be easily manageable with judicious legislation. The sinking fund principle is extensively used and equals a large proportion of the debt."

The right of an individual to sue a municipality and obtain judgment has done much to make this class of securities valuable, whereas a state cannot be sued and may repudiate.

Attempts have been made by small western cities to refuse payment on bonds issued to railroads and the right was denied them. The Des Moines Register says: "The conflict in the decisions and orders of the state and federal courts on the
question of the payment of certain bonds issued by various
cities and counties in this state, for the purpose of aiding
the construction of railroads we are glad to know is sub-
stantially at an end. The late decision of the State Supreme
Court in the case of Jos. Holman et al., vs. Harry Fulton, set-
tles the question so far as interference by state courts with
the processes of the federal courts is concerned, and the fed-
eral courts having already determined that all the power of the
government under control of the court should be used to enforce
its mandate for the collection of these bonds, there seems to
be no other alternative than for the cities and counties who
have issued their bonds to go to work in good faith and honestly
to compromise or pay them."

Out of sixty cities in 1868 only two were found in which
their finances were in an embarrassed condition. One of them
Galena, Ill. because of the decay of the industry peculiar to
that locality, had an assessed valuation of $2,25 mil. in 1856
when it floated a $200,000 debt; in 1868 the assessed valua-
tion had sunk to $448,911, making it impossible for the munici-
pality to meet its interest charge.

The modern ideas with regard to Municipal bonds are well
illustrated by the following article in the Financial Chronicle
Investor's supplement of 1892. "A comparison of statistics of
towns shows in a general way that municipalities capable of
issuing a good security have multiplied rapidly within ten or
or twenty years, new towns having come into existence while the more advanced towns have also been improving in resources, and therefore in credit. But that is not the whole case by any means; for while population and wealth was being added to, the purposes for municipal bond issues have been broadened, prominent among them must be mentioned water works and drainage. These have long held a place as legitimate objects for borrowing money. But since the laws of health and the sources of disease have become better known, and have been discussed everywhere and more generally understood by the people at large, these two classes of undertakings have proved far more prolific sources for the issuing of securities than formerly, and are held in high esteem by capitalists, water works becoming often self supporting, that is, paying all interest charges as well as cost of operation.

Faith in the securities has increased through the conservatism of states in allowing cities to pledge their credit only for public works and purposes, and making it impossible for them to subsidize railroads and individuals. The precedent established for this was the Kansas City case in which Municipalities were forbidden to lend their credit or tax their citizens for purposes other than the political welfare of its citizens. Still another safe guard is, in many states, the constitutional limit to municipal indebtedness, and a few states having added a tax and sinking fund requirement. Municipal
bonds have commanded better prices than railroad bonds. In 1890 total municipal debt outstanding $724-1/4 mil. county $145 mil, school district 36-1/2 mil., total $906 mil. Issues amounted to $83-1/4 mil. in the last year.

In 1892 it was difficult for corporations to float bonds but not so for municipalities. At a time of currency distrust, almost any government loan would be preferable to an industrial. Municipal bonds find their chief market at home, while railroad bonds abroad. They not only have a home market, but they leave the home market prepared for them in a measure by special legislation. This fact is no doubt a great factor in sustaining their credit, for the legislatures of various Eastern and Middle states have learned to guard savings bank deposits with the most zealous care, having in all of them, authorized such banks to a greater or less extent to invest their deposits in that class of securities.
Industrial Securities.

Production:-

"This class of securities may be called an exclusive one," says Mr. J. G. Martin "for it is almost exclusively in the hands of certain capitalists, who have no desire to sell when it is up and can afford to hold it when it is down. It seldom finds its way into the market, except in stray shares or in case of executors sales, is the most valuable stock of the list and exceedingly difficult to obtain reliable quotations of. The small number of shares, in each corporation, (as the par is generally $1,000) prevents the market from being supplied with what is technically called "floating stock" and completely exempts the securities from any speculative activity."

The first company of this class to be organized was the Boston Manufacturing Co., at Waltham in 1813. The success following the establishment of this company brought many others of like nature into the field. The Merrimac in 1822 and the Chicopee in 1823.

The fierce competition in productive enterprises has led in late years the great aggregations of capital under a single executive head and has been variously styled "Trust," "Syndicate," or whatnot. The most famous being the "Standard Oil Trust". Their formation is indicative of an industrial change and in the manner of doing business. They have been issuers of stocks and bonds, the latter depending upon the success of the busi-
ines for their value, unless they were chattel mortgages or are a lien on the real estate of the corporation. Many of these corporations as the "Sugar" and "Cordage" trusts have been in a large measure speculative enterprises and should not be considered as investments.

Transportation.

Railroads:-

The first railroad to be built in the United States and placed in running order to carry passengers was the Baltimore and Ohio in 1827 and the first road out of Boston was the "Lowell" road in 1835. These first roads were built by stock subscriptions and ran through portions of the country sufficiently populated to make the venture a paying business. Then the enormous advantage being seen accruing to the towns through which the railway passed, the policy was begun to extend the iron road into districts less capable of assuring investors a return for their money and the towns and the states were called on to loan the money with which to build the road. So we find the roads being built on bonds and the stock thrown in as a bonus. As a result of this came the enormous development in names and varieties of railroad bonded issues. This was particularly true just after the Civil War as the following figures will show:
in 1867 capital stock $756.2 mil. bonds $416.6 mil.

1872 " " 2248.2 mil. " 2220.2 

an increase of 197% in capital stock and of 433% in bonds showing a speculative era of railroad construction, in which bonds were largely used for the construction and consequently making them in general less valuable.

Mortgage Bonds:-

The first record of a mortgage bond was so far as I was able to determine made by the Erie railroad in 1836.

A railroad mortgage bond is a lien on the franchise, rights of way and other properties of a railway company which are named as securities in the mortgage deed for the money loaned. There may be any number of mortgages on a railway property limited only by the ability of the managers to float new loans. An example of the extent to which this is sometimes carried is seen in the history "Erie", which at one time during the Seventies had five separate mortgages on their property each mortgage subdivided into several series, A series differing but little from the original instrument possibly only in date. A mortgage is generally made through a trustee who certifies on the bond that it is one of those authorized to be issued by the company. Other bonds which do not have mortgage properties are counter-signed to show that they are of the authorized issue.
As a road from time to time extends its track or in any way increases its property, if the mortgages do not explicitly state the contrary fact, then these new properties are not to be held for the payment of the original mortgage or mortgages and may be separately mortgaged. This policy was extensively carried out by the railroads radiating from Chicago; an example being the Chicago, Burlington & Quincy, Iowa division mortgage bonds.

Since the mortgage bonds are a lien first, second third, etc. according to their order, on a railroad property, it would seem theoretically that the bonds could not exceed in value the capital stock. This was and is so on roads financially strong which were first built in New England or connected thickly settled localities. Other roads with a faith in the future development of the region through which they ran exceeded in a marked degree this theoretical limit as they were in fact built by the bonds, or in other words, the lien was created by the money loaned.

Other railway securities, other than the numbered mortgages are a collection of instruments with little or no value as investments. The names which they bear give absolutely no information of what they are or the properties on which they are a lien. Exceptions, however, be taken in favor of a General mortgage and a Consolidated mortgage.
General and Consolidated Mortgages:-

General and Consolidated mortgage may and are interchangeably used. What is known on one piece of railroad property as a general mortgage may be called on another a consolidated and be a lien on exactly corresponding properties. This form of a mortgage comes in after all the numbered mortgages and is generally a lien on what is left over. For instance, a road may have mortgaged itself almost to its limit and then added a branch here and there along its line and on these branches and on what is left over from the mortgages on the main line issue its so called general or consolidated mortgage. However, a consolidated mortgage is properly a consolidation of a number of mortgages on the main line or of acquired lines all grouped together and refunded as this consolidated mortgage. On the Erie road the term has been used in this wise. The road having become embarrassed funded the unpaid coupons and issued a note on the credit of the road and called it a consolidated mortgage. It was to follow all the other numbered mortgages in order of precedent for interest payment, and still further, there was to be no foreclosure until six coupons were in default.

The term "General Mortgage has been applied by the Chicago & Northwestern R. R. to an instrument by which the money obtained is to be applied to the retirement of the mortgaged bonds of some of its minor divisions, thus becoming practically
a first mortgage lien on those divisions, and for the improve-
ment of its equipment and road-bed, further in this case the
bonds are issued only as occasion requires and not all at the
same time.

Income Bonds:

The definition of these bonds as given by the
Interstate Commerce Commission is: "Income Bonds include all
bonds which are a lien on revenue alone, or which being a lien
on a road and its franchises can claim payment of interest only
in case interest is earned. The characteristic feature of an
income bond is that interest payments are contingent on earn-
ings, failure to provide for which cannot be made an occasion
of foreclosure."

The increase or decrease in the amount of these bonds
outstanding is then a criterion of the condition of the road. 
For this reason, when through severe competition or a series of
disasters, financial or otherwise, a road has become unable to
pay dividends on its stock or the interest on its bonds, it
may issue Income Bonds to tied them over the difficulties.
With the money gained from the sale of these bonds they then
pay off their interest on the mortgage bond and clear up their
unfunded debt, hoping that in the future their business will so
improve that they may earn enough to pay their interest charges
regularly and eventually wipe out these Income Bonds. They are
then usually issued as a matter of expediency and are not a
good investment. In order to make these bonds more attractive to purchasers, they frequently have attached a clause stating that the interest on the bonds is accumulated, that is, that if the interest is not paid one year the company is held responsible for the interest the next year, as well as for the regular interest of the second year, and if again the interest is not paid for these two years then it continues to roll up against the company the next year and so on until it is paid. Still another attractive provision in the bond may be, that the holder has the right until a certain date, stated in the bond, to exchange this bond for the stock of the company, it is then called a Convertable Income Bond.

Income Script:-

is of much the same nature as Income Bonds being a forestallment of the road's income to meet its obligations. It generally contains features to make it as attractive as possible and may have a provision for the establishment of a sinking fund to redeem the issues.

Dividend Bonds:-
A form or rather name rarely seen now is of the same nature as these Income Bonds and may be classed with them.

Debenture:-

This term covers a wider variety of bonds than any other; it being used by one road to cover three distinct forms of bonded indebtedness. That it is possible for the term to
cover an enormous range is evident from its being defined by the Century Dictionary as: "A written evidence of debt."
The term is most commonly used in connection with investment securities, as it is in reality "a collateral trust bond. That is, a collateral trust bond or the first and most common form of a Debenture Bond is a bond issued by a corporation which holds as security for the loan the collateral securities of some small road which it may have absorbed. For example, this is one of the three forms of Debenture Bonds issued by the New York Central & Hudson River Railroad. This road having acquired by lease or purchase a small tributary road placed the mortgage bonds of the small road in its vaults, and then issued a bond of its own pledging for security for the money obtained these mortgage bonds of the tributary road.

A second form is seen on the same road where an issue of bonds called Debenture Bonds was made in which nothing is pledged but the credit of the road, but with the proviso inserted in the instrument that no further mortgage shall take precedence of these bonds, and should any other mortgage be placed on the property these bonds are to be included in it; these provisions therefore giving to these bonds almost as much security as could be given to a mortgage.

The third form of Debenture used on this road and one issued in 1890 is nothing more or less than a note of the road, bearing 5% interest, the proceeds of this loan to be devoted to
the improvement of the road-bed and the equipment, as occasion requires and the bonds to be issued as the money is needed. A similar form is the Debenture issue of the New York, New Haven & Hartford Railroad of 1893. This is but a note of the road having the provision that these bonds may be converted into stock at par at a future date.

Chattel Mortgages, Equipment Trust, Car Trust, Engine Trust Bonds, etc. may be grouped together under one head. These are all efforts on the part of a road to obtain its working materials on the installment plan. In the Chattel Mortgage generally the property, other than the franchise, rights of way, etc. are mortgaged, as for example, real estate not in use for directly aiding transportation and office furniture. The other three, trust bonds, are issued when a road is unable to provide for necessary new equipment out of its current revenue, but feels the need of such and hopes thereby to so improve its business that at some time in the future it may make good the money loaned and benefit its stockholders. These bonds are a lien on this specifically denoted new equipment. Floating indebtedness and current liabilities do not come in the field of investment securities.

Preferred Stock:

This is a security intermediate and between common stock and bonds. It has much the same nature as the third form of New York Central Debenture Bonds. It is an in-
strument having the form of a common certificate of stock but with the appended clause that a specified annual dividend shall be paid on it. It may further have a clause stating that the dividend is accumulated.

There is little to be said in conclusion to such an article as this, except the axiomatic fact that in time of war the chances for investment offered by the political corporations increases tremendously and the state of war drives out of its accustomed channels the money invested in Industrial securities, this money then seeks the security of the Government. In times of Peace the reverse is true and the profits obtained in established industries seeks employment, as capital, in new fields; thus extending and developing Investment Securities.