INVESTMENT PROBLEMS

PREPARED TO COVER IN DETAIL EACH CHAPTER OF "JORDAN ON INVESTMENTS," A TEXT FOR INVESTORS AND STUDENTS OF FINANCE

BY

DAVID F. JORDAN
ASSISTANT PROFESSOR OF FINANCE, NEW YORK UNIVERSITY
AUTHOR OF "JORDAN ON INVESTMENTS,"
"BUSINESS FORECASTING," ETC.

1922
PRENTICE-HALL, INC.
NEW YORK

Printed in the United States of America

PREFACE

This book of problems has been prepared to accompany the author's text on "Investments." The chapters in the problem book correspond with the chapters in the text. Page references in the problems are also to the text.

The problems have been made as practical as possible. In fact many of them have been put to the author by students in his classes, especially in the Wall Street Division of the School of Commerce of New York University, where the students are actively engaged in investment work.

For solution of certain of the problems, reference is suggested to Dewing's "Financial Policy of Corporations"; Brown's "Municipal Bonds"; Huebner's "The Stock Market"; Meeker's "The Stock Exchange"; and the bibliography given in the text.

D. F. J.

New York City
July, 1922

CONTENTS

Chapter I

ECONOMIC THEORY OF INVESTMENT

1. With reference to the appended balance sheet:
   (a) What items represent *wealth? property?*
   (b) What is the *capital* of the company? the *capital stock?* the *capitalization?*
   (c) How has the *value* of the items been determined? In what units is the value of the items represented?
   (d) Would a *commitment* in the securities of this company be an *investment* or a *speculation?*

THE ASSOCIATED IRON COMPANY
JANUARY 1, 1922

Assets	
Land and buildings	$1,000,000
Machinery and tools	500,000
Furniture and fixtures	30,000
Securities owned	400,000
Cash on hand	100,000
Accounts receivable	200,000
Notes receivable	50,000
Inventories held	500,000
Patents and trade marks	100,000
Total assets	$2,880,000
Liabilities	
Capital stock	$1,000,000
Profit and loss surplus	750,000
Bonds payable	750,000
Reserve accounts	80,000
Accounts payable	300,000
Total liabilities	$2,880,000

2. What is the capital of each of the following companies:
   (a) United States Steel Corporation.
   (b) General Motors Corporation.
   (c) Pennsylvania Railroad Company.
   (d) Southern Pacific Company.
   (e) Montana Power Company.
3. (a) The Panama Canal 3 per cent bonds of the United States Government, due in 1961, could be purchased at 79 per cent of their face value on January 1, 1922. Did this discount exist because of apprehension that the Government might prove unable to make payment in full at maturity?
   (b) What is the difference in the present value of $1000 receivable immediately and $1000 receivable in 1930?

(c) What is the etymology of the word "interest" and what is the application of this derivation to the relationship between the value of present goods and future goods?

4. (a) Distinguish between interest and usury.
   (b) What was the ecclesiastical attitude prior to the nineteenth century with regard to interest payments?
   (c) Is Aristotle's viewpoint that coin is barren still prevalent in modern society?
5. (a) Show by diagram how the market rate of interest is determined by the demand for and the supply of loanable funds.
   (b) What is "negative" interest?
   (c) Does the "marginal" investor determine the current rate?
6. (a) Show by diagram the relationship between the maturity of a loan and the interest rate which the loan bears.
   (b) With reference to the preceding diagram, distinguish between the functions of commercial and investment banking.
7. (a) Distinguish between "true income" and "premium for risk."
   (b) What kind of return is assumed to be a criterion of "true income"?
   (c) On April 1, 1922, the Fourth Liberty 4¼ per cent bonds were selling at approximately their face value. What was the premium on this date, for risk involved in the purchase of the following securities:
      North American Edison Co. bonds on a 6.60 per cent basis.
      Delaware and Hudson Co. bonds on a 5.70 per cent basis.
      State of Oregon bonds on a 4.30 per cent basis.
      Manati Sugar Co. bonds on a 7.50 per cent basis.
      Great Northern Preferred stock on a 9.70 per cent basis.
   (d) What should be the relationship between true income and premium for risk in an investment?
8. Why is it advisable that the investor be assured that the amount of his commitment is to be used for a productive purpose?
9. In what sense is every true investment commitment really a divestment?
10. (a) What has been the volume of new investment securities marketed in the United States during each of the past three years?
    (b) How do these totals compare with the total wealth and income of the people of the United States?
    (c) What were the respective percentages of total income received as dividends and as interest as shown by the United States income tax returns for 1918?
11. In 1885 a municipality purchased a fire engine at a cost of $6,000. Payment was arranged through the sale of twenty-year 6 per cent bonds at par. At the maturity of the bonds in 1905, $1,000 in bonds was redeemed and the balance of $5,000 refunded in fifteen-year 7 per cent bonds at par. In 1920 the refunding bond issue was still outstanding and the fire engine had been in the junk heap for twenty years. What was the total cost of the fire engine to the citizens of the town?

[illegible]

Chapter II

FORMS OF INVESTMENT SECURITIES

1. (a) Distinguish between a share of stock and a stock certificate.
   (b) Compare the American term "bond" with the English term "debenture".
   (c) Why are the bond issues of New York City called corporate stock?
   (d) What is the fundamental difference between the position of the bondholder and that of the stockholder with regard to income and risk?
   (e) Upon what is the income of a stockholder contingent?
   (f) Why are shares of stock said to be fungible?
2. (a) What is meant by the "par value" of a security?
   (b) What is the usual par value of a share of stock and of a bond?
   (c) What is the par value of a share of stock in each of the following companies: Pennsylvania Railroad Co.; General Electric Company; Pierce Oil Corporation; Kennecott Copper Corporation.
3. (a) What is the relationship between market value and par value? No
   (b) Why do many companies issue stock without par value?
4. (a) Why are certain stocks called preferred stocks?
   (b) May preferred stocks be issued without par value?
   (c) What is the nature of the preference in the case of Cluett Peabody Preferred?
   (d) Does preferred stock usually have voting power?
   (e) What is meant by cumulative preferred stock?
   (f) What has been the experience of International Mercantile Marine and American Hide and Leather with cumulative preferred stock?
   (g) Why are redeemable and convertible features usually found together in a security?
   (j) What effect have the redemption and conversion features had upon the market price of Bethlehem Steel 8 per cent preferred?
5. Referring to the dividend notice on page 19:
   (a) X purchased United Gas Improvement stock on June 11, 1919, and had the stock transferred to his own name. On July 9 he sold the stock to Y, who immediately had it transferred on the books of the company. To whom will the dividend check be mailed on July 15?
   (b) Why is Y's purchase regarded as an "ex-dividend" transaction?
6. In what various forms may dividends be paid? Cash & stock
7. Why do stocks usually fluctuate in value more widely than bonds?
8. What security was once termed "Idiot's Delight," and why?
9. In 1917, the Dodge Brothers, owning 20 per cent of the capital stock of the Ford Motor Co., which at the time was outstanding to the total of

$2,000,000, sued the company to compel distribution of the accumulated surplus of $120,000,000. Henry Ford, as the principal stockholder owning 58 per cent of the stock, objected to the distribution because he claimed that the funds were needed for the proper conduct of the business. Could the Dodge Brothers compel the distribution?

10. The Bethlehem Steel Corporation in 1917 increased its capital stock by declaring a 200 per cent stock dividend on its common stock and by offering new stock at par to old common stockholders to the extent of 100 per cent of their holdings. What was the purpose?

11. At the beginning of 1922 the North American Co. offered to stockholders the privilege of subscribing to additional stock to the extent of 70 per cent of their holdings at par ($50) at the following times: Up to Jan. 3, 1922, 15 per cent; from then until Dec. 31, 1922, 20 per cent; from then until June 30, 1923, 20 per cent; from then until Dec. 31, 1923, 15 per cent. What was the value of a "right" in New York on March 1, 1922?

12. Distinguish between a right and a warrant.

13. (a) What was the nature of the stock option warrants attached to the 5-year 6's of the American Light and Traction Co., due in 1925?
    (b) What was the nature of the stock option warrants attached to the 10-year 7's of the Phillips Petroleum Co., due in 1931?
    (c) In either of the above cases, did the warrants prove valuable?

14. What special provisions apply to the Goodyear Tire and Rubber Company management stock?

15. What is the conversion feature of the Reading Second Preferred, and why was it so arranged?

16. (a) Name an adjustment bond..
    (b) Why are adjustment bonds invariably subject to prior liens?
    (c) What is the purpose of the issuance of adjustment bonds?
    (d) Why does an adjustment bond always signify caution to the investor?
    (e) What is the nature of the lien securing the Seaboard Adjustment 5's of 1949?

17. (a) Name a bridge bond.
    (b) Are the First 4½'s of the Terminal R. R. Association of St. Louis, bridge bonds?
    (c) What is the security behind the bonds of the New York Connecting Railroad Co.?

18. (a) Name a car trust note.
    (b) What is the so-called Philadelphia plan under which car trust notes are issued?
    (c) How does the Philadelphia plan differ from the New York plan?

19. (a) May companies other than railroads issue equipment notes?
    (b) Are marine equipment notes, such as have been issued by the Grace Steamship Co., entitled to as good rating as railway equipment notes?

20. (a) Name an extension bond.
    (b) How many times has the maturity date of the New York and Erie First 4's been extended?
    (c) Why is the interest rate reduced in certain cases of extension, and increased in other cases?
21. (a) What is the significance of a general mortgage bond?
    (b) Why is such a mortgage often called a blanket mortgage?
22. (a) Name an improvement bond.
    (b) By what class of borrowers are improvement bonds usually issued?
23. (a) Illustrate the use of interim certificates.
    (b) Why is it preferable to hold an interim certificate rather than a receipt from the selling house?
    (c) What is the usual period for which interim certificates are necessary?
24. (a) Name a purchase-money mortgage bond.
    (b) What is the unusual feature of a purchase-money mortgage?
25. (a) Name a refunding mortgage bond.
    (b) Do refunding mortgage bonds ever hold the first lien upon the property pledged?
    (c) What is understood in corporation finance by the expression "trading on the equity"?
    (d) Why do corporations refund rather than extinguish their indebtedness?
    (e) What justification has the Buffalo General Electric Co. for terming certain of its bonds First Refunding Mortgage bonds?
    (f) Why are certain bonds of the Alabama Power Co. termed First Mortgage Lien and Refunding 6's?
    (g) Why are the First and Refunding Mortgage bonds of the Adirondack Power and Light Corp. so called?
    (h) Are the First Consolidated Mortgage bonds of the Atlanta Consolidated Street Railway Co. secured by a first mortgage on the property of the company?
    (i) Are the First Refunding Mortgage bonds of the City Water Co. of Chattanooga, Tenn., secured by a first mortgage on the corporate property?
26. What types of securities are peculiar to reorganization proceedings? What claims do they have on the property?
27. The bonds of the Kansas City Terminal Railway Co. are guaranteed by what individual companies?
28. In what manner does the issue of the First Consolidated Mortgage 5's of the Southern Railway Co., due in 1994, tend to unify the indebtedness of the company?
29. (a) Name a prior lien bond.
    (b) Why do holders of first mortgage bonds sometimes permit prior liens to be placed upon the corporate property, as was the case in the St. Louis-San Francisco Railway reorganization?

30. (a) Are all bonds mortgage bonds?
    (b) Why are bonds which are secured by a second or third mortgage usually termed refunding or consolidated rather than second or third?
    (c) What is the numerical sequence of the lien which the Erie Railroad Convertible 4's of 1953 hold against the corporate property?
31. (a) What is a debenture bond?
    (b) Are the debentures proposed in the Edge amendment to the Federal Reserve Act to be secured by the definite pledge of property?
    (c) What is the security behind the Debenture 6's, due 2014, of the American Gas and Electric Co.?
    (d) What is the security behind the Debenture 5's, due 1926, of the Buffalo and Susquehanna Iron Co.?
32. (a) Name a receiver's certificate.
    (b) What claim have the holders of receiver's certificates against the corporate property?
    (c) Why do receiver's certificates seldom bear a maturity date beyond three years?
    (d) How were holders of receiver's certificates treated in the Atlanta, Birmingham and Atlantic Railroad reorganization in 1914?
33. (a) Name a collateral trust note.
    (b) In what class of companies is this form of security most generally found?
    (c) Why is it difficult to analyze the investment position of collateral trust notes?
34. (a) Distinguish between guaranteed, endorsed, and assumed bonds.
    (b) What position do the holders of guaranteed securities occupy with respect to priority of claim against the earnings of the guaranteeing company?
    (c) Does the investment position occupied by the Morris and Essex First Refunding 3½'s of 2000, arise because of the Delaware, Lackawanna and Western guarantee? Would the bonds command their current price if the guarantee were removed?
    (d) Does the investment position occupied by the Fifth Mortgage Extended 4's of 1928 of the New York and Erie R. R. arise because the obligation for the payment of interest and principal has been assumed by the Erie R. R. Co.? What would be the effect if the Erie assumption were to be cancelled?
    (e) Certain of the Houston, East and West Texas Railway First Mortgage 5's, due in 1933, are stamped with the notation that the Southern Pacific Co. guarantees payment of interest and principal. Other bonds of the same issue have not been so stamped, with the result that the issuing company is the sole obligor. Should the stamped or unstamped bonds command the better market?
    (f) Why did the German stamp on Japanese bonds offered in the United States in 1915 affect the market price of the bonds?
    (g) During the construction of the Western Pacific Railroad the bonds of the company were sold bearing the guarantee of the Denver

and Rio Grande Railroad as to interest payment. The Western Pacific was unable to meet the interest payments, following which the Denver and Rio Grande defaulted in its guarantee under the claim that it could not meet the obligation. Could the Denver and Rio Grande be compelled to make the payments?

35. (a) Name a real estate mortgage bond.
    (b) Compare real estate mortgage bonds with other types of bonds from the standpoint of relative marketability.
36. (a) Why do some bonds contain sinking fund provisions?
    (b) To what extent does the operation of a sinking fund help the investment position of the bonds?
    (c) Which of the following methods of making payments into a sinking fund is more satisfactory from the standpoint of the investor?
        (1) In proportion to earnings.
        (2) As a fixed amount.
    (d) To what extent may a company be compelled to live up to its sinking fund agreement?
    (e) What are the sinking fund provisions in connection with each of the following bonds:
        (1) Colorado Industrial Co. First 5's of 1934.
        (2) United States Steel Sinking Fund 5's of 1963.
        (3) Baldwin Locomotive First 5's of 1940.
        (4) Anaconda Copper Secured 6's of 1929.
        (5) American Can Debenture 5's of 1928.
        (6) Atlanta Gas Light First 5's of 1947.
37. (a) Why is the interest upon income bonds regarded as a contingent charge?
    (b) What justification is there for the statement that "the income bondholder may find that he has purchased a lawsuit rather than a security"?
    (c) Interpret the following statement: "The security of the income bondholder is the willingness of a board of directors, of which he has no share in the choosing, to pay over to him sums of money which they have a perfect right to expend on the improvement of the property, a task which is never completed."
    (d) Under what conditions is interest paid on the following income bonds:
        (1) Hudson and Manhattan Adjustment Income 5's of 1957.
        (2) St. Louis-San Francisco Income 6's of 1960.
        (3) Elmira and Williamsport Income 5's of 2862.
    (e) What is the difference in the manner in which income bonds are quoted in contrast with other bonds?
38. (a) Why are the United States Panama Canal bonds regarded as tax-free bonds?
    (b) To what extent is the income from United States Steel common stock tax exempt?
    (c) The Baldwin Locomotive First 5's of 1940 contain a covenant that the principal and interest is payable with deduction for any taxes

which the Company may be required to pay or retain. To what extent is this covenant of advantage to a bondholder?

39. What are the various ways in which a bond may be convertible with respect to (a) conversion period; (b) conversion ratio; and (c) security into which convertible?

40. What are the various ways in which a bond may be redeemable with respect to (a) time of redemption; and (b) redemption price?

41. (a) Does the conversion feature improve the investment position of the New York, New Haven and Hartford Debenture 6's due in 1948?
    (b) Has the conversion feature any effect upon the current price of the Chicago, Milwaukee and St. Paul's 5's of 2014?
    (c) Has the conversion feature any effect upon the current price of the American Telephone and Telegraph 6's of 1925?

42. (a) Has the redemption feature any effect upon the market price of the American Agricultural Chemical First Refunding 7½'s of 1941?
    (b) Has the redemption feature any effect upon the market price of the Government of Switzerland 8's of 1940?
    (c) What inducement was offered to the holders of the Houston, East and West Texas First 5's by the Southern Pacific to permit the stamping of a redemption feature upon the bonds?

43. What is the maturity date on each of the following issues:
    (a) United States Government 4's, issued in 1895.
    (b) Republic of France 6's, issued in 1920.
    (c) West Shore First 4's, issued in 1885.
    (d) Commercial Cable First 4's, issued in 1897.
    (e) Elmira and Williamsport Income 5's, issued in 1863.
    (f) Lehigh Valley Annuity 6's, issued in 1873.
    (g) Public Service Corp. of N. J. Perpetual 6's, issued in 1903.
    (h) British Consols and French Rentes.

44. (a) What is the plan of redemption of the Missouri Pacific 6 per cent Equipment Trust notes, due up to 1935?
    (b) For what purposes additional to the purchase of railroad equipment are bonds issued with serial maturities?

45. (a) Show how the use of series mortgage bonds is illustrated in the case of the Chicago, Milwaukee and St. Paul General Mortgage bonds due in 1989.
    (b) Why does each series bear an interest rate different from that of the other series?
    (c) In what respect do the general mortgage series bonds of the Pennsylvania differ from those of the St. Paul?

46. Are each of the following bonds joint and several obligations?
    (a) Chicago Union Station First 4½'s of 1963.
    (b) Northern Pacific-Great Northern Convertible 6½'s of 1936.
    (c) Copper Export Assn. 8's of 1925.

47. Discuss the Port Wentworth (Ga.) First 8's of 1950 with respect to profit-sharing, conversion, and sinking fund features.

48. (a) Why did the Union Pacific 4's of 1927 sell in 1909 as high as 124¼?
    (b) Why did these bonds sell as low as 78¼ in 1907, when the common stock of the company was at 100?

49. (a) What is the participation feature of the Marland Oil 8's of 1931?
    (b) What effect has this feature upon the value of the stock option warrants attached to the bonds?

50. On March 31, 1922, United States Liberty Second 4's closed at 98.74 for the coupon bonds and 98.00 for the registered. Account for the difference in price.

51. (a) In 1908 Central Railroad of N. J. General 5's, due in 1987, sold at 130¼. Is it usual for a bond to sell so high? What was the reason in this case?
    (b) In 1907 the Lorillard Debenture 7's, due in 1944, sold at 128. What factors obtained in the Lorillard case which differed from those in the preceding instance?

52. What is unusual about the conversion feature included in the Northern Pacific-Great Northern convertible 6½'s of 1926?

53. The Canadian Pacific Railway Co. in 1921 sold what was termed 4 per cent Consolidated Debenture stock in bearer form, with interest coupons attached. Was this really a stock or a bond?

Chapter III

TESTS OF INVESTMENT

1. (a) What are the three primary considerations in every investment?
   (b) Are the three interdependent or independent of each other?
   (c) What is understood by the term "marketability"?
2. (a) In the current purchase of Cincinnati Gas and Electric First and Refunding 5's due in 1956, should the investor inquire more closely into the ability of the company to pay the principal at maturity, or to pay the interest charges during the lifetime of the bond?
   (b) If it is assumed that the purchaser of a bond pays a price which is the present value of the interest payments and the principal, what is paid for when British Consols—which have no maturity date—are bought?
   (c) Is the purchaser of Commercial Cable 4's, due in 2397, in the same position as far as present value of principal is concerned, as the purchaser of British Consols?
3. May the security of principal of an investment be checked more readily from the balance sheets or the income statements of the debtor company?
4. Refer to problems Nos. 4 and 5 in Chapter 1.
   (a) How is investment income measured?
   (b) Distinguish between "nominal" yield and "net" or "effective" yield.
   (c) What determines the prevailing rate of return on investment securities?
   (d) Why did the securities stated in problem 7 (c) of Chapter 1 command varying rates of income?
   (e) How is the basic rate of interest determined?
   (f) How may the basic rate be ascertained?
   (g) What is the current rate of interest under the following classifications:
      (1) Call money at New York.
      (2) Bank rate on 90-day commercial loans.
      (3) Federal Reserve rediscount rate on 90-day paper.
      (4) Net yield on Fourth Liberty 4¼'s of 1938.
5. (a) Does the market price of a security determine the yield, or does the yield determine the market price?
   (b) Delaware and Hudson stock pays 9 per cent dividends. Show by diagram the effect upon the market price of the stock if the rate of investment income should vary from 4 per cent to 10 per cent in steps of ½ of 1 per cent each.

6. Complete the following table which aims to classify investment securities according to the current yield:

Class	*Income range*
Gilt-edge	Not exceeding........%
High-grade	........% to ....%
Good	........% to ....%
Fair	........% to ....%
Speculative	All over.............%

7. Early in 1922 the common stock of Public Service of New Jersey was selling at a lower yield than the bonds of the same company. Why? Also account for the fact that at the same time United States Steel common was selling to yield less than the preferred.
8. In April of 1922 Standard Oil of New Jersey common was selling to yield slightly over 2 per cent. The yield would indicate ultra-safe investment opportunity. Was such the case?
9. Account for the fact that in May of 1920 the Anglo-French 5's, due the following October, were selling to yield over 10 per cent.
10. In January of 1922, Pennsylvania common was selling to yield well under 6 per cent, whereas stocks of the same class, such as New York Central and Atchison, were yielding above 6 per cent. Why?
11. (a) Upon what does stability of investment income depend?
    (b) What is meant by "terms of the investment contract"?
12. The annual reports for 1921 operations showed that the manufacturers of the Victor phonograph realized satisfactory profits, whereas the makers of the Columbia incurred heavy losses. Analyze the reports to determine why this was so.
13. Why have securities of railroads and public utility companies in general an inherent superiority over those of industrial companies?
14. (a) Upon what factors does the marketability of a security depend?
    (b) How much does marketability cost in the average security, i. e., what is the difference in income yield between two securities equally good in all respects other than marketability?
    (c) How may the marketability of a security be judged?
    (d) To what extent does the "collateral" value of a security depend upon marketability?
    (e) In pledging securities as collateral for a bank loan, does title pass to the bank? What is the ordinary margin of safety required by the bank?
    (f) Does the fact that a security is listed on a stock exchange add to its marketability?
    (g) To what important class of investors is marketability of chief importance? To what other important class is it of secondary importance?
    (h) In March of 1922, Bethlehem Steel Common was selling at 59, whereas Bethlehem Steel Common Class B—identical with the

straight common except that the Class B has no voting power—was selling at 64. Account for the price difference.

(i) In January of 1922, Eastman Kodak stock was quoted at 650 and Erie Common at 10. If a quantity of each with an equal market value were offered as collateral for a loan, which would a banker prefer?

15. The Federal income tax, effective in 1922, upon a taxable income of $50,000 amounts to 17.28 per cent. An investor with a taxable income of that amount purchased that year a bond which yielded 6 per cent before taxes. What was the yield after Federal taxes? Would it have been more advisable for that investor to have purchased a tax-free bond to yield 5 per cent?

16. (a) Why does the date of maturity have a definite effect upon the rate of interest which a bond bears, the yield at which the bond may be purchased, and the price at which the bond sells?
    (b) Account for the range of prices on the Northern Pacific General Lien 3's of 2047 from 1900 to the present time.
    (c) Why is it desirable that the maturity dates of the securities held in an investment fund be diversified?
    (d) What relationship has maturity date to reinvestment?

17. Why is the fact that the Government of Newfoundland 5½'s of 1942 are "non-callable," advertised as an inducement for the sale of the bonds?

18. What disadvantages arise in connection with sinking fund bonds where the fund is used to repurchase bonds which are drawn for redemption?

19. An investor recently purchased $50,000 in the bonds of an Arkansas municipality. Later he learned that this was the entire amount outstanding. What disadvantage was involved?

20. (a) May a smaller sum than $1,000 be invested in a single security?
    (b) Should a person of limited means invest $2,000 in two $1,000 bonds, or in more pieces of smaller denominations?
    (c) Why was the par value of the common stock of the Standard Oil Company of New Jersey reduced from $100 to $25 per share on December 20, 1920?
    (d) Eastman Kodak common stock was quoted on April 5, 1922, at $740 per share. What is the practical objection to such a high price? How may this condition be remedied?

21. What factors cause the market value of a security to change from time to time?

Chapter IV

UNITED STATES GOVERNMENT BONDS

1. (a) What pre-war issues of United States Government bonds remain outstanding?
   (b) Where is the principal market for these bonds?
   (c) Which of these issues may be used as security for bank-note circulation?
   (d) On April 1, 1922, the U. S. 4's of 1925 were quoted at 106. Show how a national bank might profit through the purchase of these bonds for circulation purposes.
   (e) What provision is made in the Federal Reserve Act for the retirement of the pre-war bond issues?
2. Prepare a table showing the gross public debt arranged according to maturity dates.
3. With reference to the Liberty Loan bonds:
   (a) Show how the various issues came into existence.
   (b) Explain the tax exemption features of each of the issues.
   (c) What is the maximum amount of bonds which may be held as tax-free? Show how this amount is made up.
   (d) Why have the First-Second Converted 4¼'s sold out of line with the other 4¼ per cent issues?
   (e) What are the sinking fund provisions with regard to each of the outstanding issues?
4. With reference to the Treasury certificates of indebtedness:
   (a) What was the original purpose of the issuance of these certificates during the war?
   (b) Was it contemplated that they should comprise a permanent feature of Treasury financing?
   (c) What are the various issues outstanding?
   (d) Would it be advisable to fund the outstanding certificates into a long-term bond?
   (e) To what class of investors do the certificates have an especial appeal?
5. With reference to Federal Farm Loan securities:
   (a) Outline briefly the Federal Farm Loan system.
   (b) Distinguish between Federal Farm Loan Banks and Joint Stock Land Banks.
   (c) Why are these bonds regarded as "instrumentalities of the United States Government"?
   (d) What is the tax position of these securities?
   (e) On April 4, 1922, stock in the First Joint Stock Land Bank of Chicago was offered at "135 and accrued dividend." The current dividend rate was 9 per cent. Analyze this security with respect to yield, tax position, and dividend prospect.
   (f) Where is the principal market for the sale of these securities?

6. Outline the investment position of the postal savings bonds.
7. (a) What is the present total of the public debt and how does this amount compare with the maximum reached in August, 1919?
   (b) What is the annual interest charge on the public debt and how does this amount compare with total Federal expenditures annually preceding the World War?
   (c) What is the relationship between total ordinary revenues and expenditures for the current fiscal year to date, and what is the effect upon outstanding Federal securities?

Chapter V

STATE BONDS

1. Read carefully the tenth and eleventh amendments to the Constitution of the United States and explain the effect of these amendments upon the investment position of State bonds.

2. (a) X, a resident of South Dakota, held bonds of the State of North Carolina in default. Could X sue for payment?
   (b) Could X recover by having his State government sue North Carolina?
   (c) Could X make a gift of his bonds to South Dakota and then could South Dakota sue?
   (d) Could X agree with South Dakota to share in the proceeds of a successful suit?

3. Comment upon the appended financial statement:

FINANCIAL STATEMENT
STATE OF OREGON

April 1, 1922

Assessed valuation	$1,020,804,197
Total bonded debt	42,695,125
Population 1920 census	783,285

4. Compare the following States on the basis of indebtedness per capita: New Hampshire, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Illinois, Missouri, Mississippi, Texas, Kansas, California.

5. Review the conditions under which Pennsylvania defaulted in 1842; Illinois in 1841; Mississippi in 1840; Texas in 1848; California in 1854; Virginia in 1872.

6. (a) What are the five leading restrictions governing the creation of State debts usually found in State constitutions?
   (b) What are the constitutional restrictions in this State?
   (c) Why were the "Soldier Bonus" bonds held to be unconstitutional in New York State in 1921?
   (d) A large share of the debt of New York covers bonds issued for transforming the old Erie Canal into a barge canal. Has this proved a "productive enterprise"?

7. Write out the debt statement of this State with the purposes for which the bonds were issued.

8. What is the percentage of negro population in each of the South Atlantic States and what effect has this condition upon the investment status of the bonds of those States?

9. How are sinking fund purchases arranged by State governments?

10. What is the investment position of the State of Georgia, Western and Atlantic Railroad 5 per cent Rental Assignment Certificates, due 1922-1927?
11. Account for the variance in the yield of the following New York State bonds:
    (a) 3's of 1959.
    (b) 4's of 1961.
    (c) 4½'s of 1963.
12. (a) Why has the State of Louisiana refused to redeem the so-called baby bonds which were due in 1886?
    (b) Why did not this default cause the bonds of the State to lose their status as "legal investments" for New York savings banks?
13. What is the investment position of the State of Louisiana Port Commission Serial Canal 5's, due 1929-1958?
14. Account for the following trend in the yield of New York State bonds:

1900	2.65%
1905	3.50
1910	3.78
1915	3.95
1920	4.10
1921	4.70
1922	4.00

Chapter VI

MUNICIPAL BONDS

1. With reference to the municipal financial statement which appears on page 77:
   (a) Does the total bonded debt include the school debt?
   (b) Why is the water debt treated as a deduction?
   (c) In what different ways may the sinking fund be invested?
   (d) What is the basis for assessment valuations?
   (e) What percentage of the assessed valuation is the net debt?
   (f) What purpose is served by stating the tax rate and the population?
2. Analyze the effect of the creation of the following tax districts upon the bonds of municipalities within the districts:
   (a) Miami Conservancy District, Ohio.
   (b) Indianapolis School District, Indiana.
   (c) Port District, New York and New Jersey.
   (d) Canaseraga Creek Improvement District, New York.
3. Why is a debt percentage of 5 per cent in Massachusetts usually a better showing than a 3 per cent debt in Illinois?
4. In what respect do municipal bonds issued in the New England States differ fundamentally from those of other States?
5. (a) What are the legal restrictions upon the creation of municipal debt in this State?
   (b) Distinguish between a tax limit as imposed in Ontario and a debt limit as imposed in New York.
   (c) Does an absolute tax limit affect the credit of a city?
   (d) What are the usual purposes for which a municipality may borrow?
   (e) What was the percentage borrowed for each purpose during the past year?
   (f) What are the four chief reasons for which municipal bonds have been held invalid?
6. (a) A city in New York has a net debt of $1,234,568, which is approximately the debt limit of the city. The municipality desires to borrow $100,000 to construct a storm sewer through the city. How may this be accomplished?
   (b) A city in Minnesota desires to borrow $300,000 to aid a local railroad company. May it do so?
7. Explain the application of the principle of *caveat emptor* to the purchase of municipal bonds.
8. Distinguish between direct and limited obligations in municipal bonds.
9. (a) What is known as debt service?
   (b) Why is personal property stated separately in assessment valuations?

(c) What items are allowable deductions in computing net debt?
(d) What should be the ratio of net debt to assessed valuation?

10. (a) Discuss the Massachusetts and Ontario requirements as to the maturity date of bond issues.
(b) For what period should bonds for the following purposes be issued: parks, schools, streets, cemetery.

11. (a) What is a municipal irrigation district?
(b) What States have irrigation commissions and what is the function of the commissions?
(c) How are irrigation district bonds certified?
(d) Distinguish between the terms "irrigation" and "water conservation".

12. (a) Why are refunding bonds unpopular among municipals?
(b) What States permit this practice?

13. For a selected county, such as Albany County in New York State, compute the total debt percentage of the values, taking all the debt for which the values are liable. Allot to the area a part of the State debt in proportion to the relationship between the total State valuation and the valuation of the area selected.

14. What is the advantage of an approval of a bond issue by referendum?

15. How should redemption of a municipal bond be assured?

16. A city desires to borrow $1,000,000 for 20 years at 4 per cent. Which will be the more economical plan of payment—sinking fund or serial maturities?

17. Under what conditions are municipal bonds legal investments for savings banks in New York?

18. With reference to the purchase of municipal bonds by investment houses:
(a) What are the advantages and disadvantages to the city and to the investment houses of (1) public sale and (2) private sale?
(b) What is meant by an "all or none" bid?
(c) Why is it desirable that offerings below par be considered?
(d) The City of Centralia, Wash., at one time sold bonds at a discount, although the State law forbids such practice. Five years later an attempt was made to invalidate the bonds. To what extent were the holders affected?
(e) Discuss the Dutch method of allotting bonds on the basis of the lowest bid accepted, in comparison with the American practice of the highest aggregate bid.

19. On January 25, 1921, the City of Yonkers, N. Y., desired to sell $2,312,000 in bonds. The following statement shows the financial condition of the city on that date:

Assessed valuation	$178,123,037
Net debt	12,490,749

(a) Could the bonds be legally issued?
(b) To the extent of what total could additional bonds be issued?

20. From the appended statement determine for each city:
 (a) Percentage of net debt.
 (b) Per capita net debt.
 (c) Effect upon debt percentage of valuation basis.
 (d) Legal status in New York.

REPRESENTATIVE AMERICAN CITIES, 1920.

City	Population	Assessed valuation	Valuation basis, per cent	Net debt
Montgomery, Ala.	43,464	$24,174,000	33⅓	$2,817,000
Little Rock, Ark.	65,142	29,279,000	40	1,550,000
Pasadena, Cal.	45,354	52,128,000	67	2,386,000
Denver, Col.	256,491	223,671,000	100	14,345,000
Indianapolis, Ind.	314,194	185,031,000	60	6,804,000
Grand Rapids, Mich.	137,634	127,544,000	100	3,961,000
Portland, Ore.	258,288	225,629,000	75 & 50	14,345,000
Wheeling, W. Va.	56,208	39,783,000	100	745,000
Albany, N. Y.	113,344	107,749,790	88	7,282,000
Duluth, Minn.	98,917	48,555,000	40	6,895,000
Poughkeepsie, N. Y.	35,000	33,212,000	75	1,745,000

21. In February, 1921, an investor made an even exchange of $13,700,000 in par value of 4 per cent railroad bonds for $10,000,000 in New York City 4½'s of 1971. How much did he gain or lose by the transaction? (Assume identical conditions with regard to payment of the bonds at maturity.)

22. What is the importance of having the legal features of municipal bonds approved by qualified counsel?

23. Prepare tables showing for each of the past five years:
 (a) the relative percentages of municipal bonds sold according to interest rates.
 (b) the relative percentages of municipal bonds sold according to purpose of issue.

24. On Dec. 15, 1921, the city of New York offered $55,000,000 in 4½ per cent bonds, due in 1971, at public sale. The following bids were received:

Name—	Amount.	Price
Empire Trust Co.	$5,000,000	102.33
Speyer & Co., Bank of Manhattan Co., A. B. Leach & Co., Inc. Dominick & Dominick	5,000,000	103.75
	5,000,000	103.65
	5,000,000	103.55
	5,000,000	103.45
Robert S. Byfield	50,000	100.00
Rutter & Co.	100,000	104.25
	100,000	104.00
	100,000	103.75
	100,000	103.50
	100,000	103.25
Kountze Brothers	250,000	100.37
	250,000	100.57
	250,000	100.77
	250,000	101.07
	250,000	101.27
	250,000	101.47
	250,000	101.67
	250,000	101.87

Name—	Amount.	Price
Bankers Trust Co.	5,000	103.05
	5,000	103.10
J. P. Morgan & Co., Chase Securities Co., First National Bank, National City Co., Guaranty Co., Bankers' Trust Co., Brown Bros. & Co., Harris, Forbes & Co.	55,000,000	100.01
	All or none	103.407
Blair & Co., Hallgarten & Co., W. R. Compton Co., White, Weld & Co., Kissel, Kinnicutt & Co., New York Trust Co., Central Union Trust Co.	55,000,000	102.551
C. W. Whitis & Co.	150,000	103.60

Name—	Amount.	Price
Farmers Loan & Trust Co.	50,000	100.00
E. Naumburg & Co.	50,000	105.125
Austin J. G. Ramsay	20,000	102.50
Eugene Littauer	100,000	103.473
Remick, Hodges & Co.	10,000	104.01
	30,000	102.50
	10,000	102.26
Robinson & Co.	100,000	101.281
	100,000	101.481
	100,000	101.681
	100,000	101.881
	100,000	102.081
	100,000	102.281
	100,000	102.481
	100,000	102.681
	100,000	102.881
	100,000	103.081
Chemical National Bank, N. Y.	1,000,000	102.30
Mechanics' Bank, Brooklyn	200,000	100.75
	200,000	100.85
	200,000	100.90
	200,000	100.95
	200,000	101.00
Metropolitan Trust Co., N. Y.	100,000	102.375
	100,000	102.4125
	100,000	102.4525
	100,000	102.525
	100,000	102.535
Fidelity International Trust Co.	200,000	100.50
	200,000	100.75
	100,000	101.00
Blake Brothers & Co.	100,000	102.39
	100,000	102.49
	200,000	102.59
	200,000	102.69
	200,000	102.79
	200,000	103.00
R. W. Pressprich & Co.	100,000	101.50
	100,000	101.75
	100,000	102.00
	100,000	102.50
	100,000	103.00
First National Bank, Brooklyn	100,000	101.00
Bank for Savings in the City of N. Y.	1,000,000	102.51
Louis Masbach	25,000	103.01

Name—	Amount.	Price
Provost Bros. & Co.	300,000	103.00
Kuhn, Loeb & Co., Dillon, Read & Co., Kidder, Peabody & Co.	55,000,000	101.00
	All or none	103.077[1]
Luke A. Dalton	10,000	100.55
Gordon B. Todd & Co.	10,000	101.011
Italian Savings Bank	200,000	102.25
Union Exchange National Bank	1,000,000	100.50
Leonhard Felix Fuld	100	100.00
Farson, Son & Co.	100,000	102.57
	100,000	102.77
	100,000	102.87
	100,000	103.01
	100,000	103.08
	100,000	103.32
	100,000	103.42
	100,000	103.71
	100,000	103.85
	100,000	104.03
Benjamin Mordecai	20,000	100.50
Harrison D. Kerr	15,000	101.02
First National Bank, Jamaica	100,000	100.125
	250,000	100.00
Franklin Lodge No. 447, F. & A. M.	1,000	100.50
John Guttman	20,000	100.75
John Reid Agnew	1,000	102.80
A. J. Johnson & Co.	1,000,000	100.00
Garfield Nat. Bank	50,000	100.00
Mechanics & Metals National Bank	3,500,000	100.00
Corn Exchange Bank	10,000,000	100.125
H. W. Martin & Co.	25,000	101.50
Gotham Nat. Bank, New York	300,000	101.50
Sol Grossman	2,000	101.267
Sutro Bros. & Co.	1,000,000	102.51
The Standard Bank, New York	100,000	100.50
	100,000	101.00
	100,000	101.50
	100,000	102.00
	100,000	102.50
Total amount bid for	$218,909,100	
Number of bids	57	

(a) What constituted the highest aggregate bid?
(b) What was the second highest bid?
(c) What was the third highest bid?
(d) Account for the sliding scale offered by certain bidders.

25. (a) Should a bond sales circular show the total amount of bonds authorized when only a portion of the issue has been purchased and is being offered?
(b) If so, should the financial statement include all the bonds authorized, or only those actually sold by the issuing community?
(c) When bonds are purchased for delivery in installments and are offered only as delivered, what should the circular show?
(d) What should the financial statement show?
(e) Should the circular show the bonded debt of co-extensive or overlapping political subdivisions?
(f) What practical difficulties intervene to prevent the stating of much desirable information on the circular?

26. (a) To what extent are municipalities compelled to observe the sinking fund provisions which appear in the bonds?
    (b) Should default in sinking fund payments be regarded as seriously as default in interest payments?
    (c) Upon whom should fall the responsibility of checking up the sinking fund payments?

Chapter VII

CORPORATE SECURITIES IN GENERAL

1. What would be the personal liability of an investor which might arise from stockholdings in the following companies in the event of financial insolvency on the part of the companies:
   (a) United States Steel Corporation.
   (b) Pacific Gas and Electric Co.
   (c) American Express Co.
   (d) National Bank of Commerce (N. Y.)
   (e) Bank of California (N. A.)
2. M owns 3,000 shares out of a total outstanding of 3,500 shares of the Madison Manufacturing Company. In the event of the death of M, what will be the effect upon the corporate existence of the company?
3. N has $100,000 invested in the securities of the General Electric Company. An emergency arises and he desires immediately to convert his holdings into cash. May he do so without difficulty and without financial sacrifice?
4. What is the "fixed investment" of each of the following companies:
   (a) Southern Pacific Lines.
   (b) American Telephone and Telegraph System.
   (c) Montana Power Co.
   (d) Bethlehem Steel Corporation.
   (e) Armour and Co.
   (f) Montgomery, Ward and Co.
   (g) Anaconda Copper Co.
5. Chart the gross revenues of the following companies for the period from 1910 to date:
   (a) New York Central.
   (b) Pacific Gas and Electric.
   (c) United States Steel.
6. Compute the percentage of operating revenues absorbed in operating expenses for the United States Steel Corporation for the years 1910 to date.
7. Compare the investment status of the following companies on the basis of stability of demand for product manufactured or service produced:
   (a) New York, New Haven and Hartford Railroad.
   (b) Atchison, Topeka and Santa Fe Railroad.
   (c) Consolidated Gas Co. (N. Y.)
   (d) Cities Service Co.
   (e) American Hide and Leather Co.
   (f) Columbia Graphophone.
   (g) International Mercantile Marine.
   (h) Utah Copper.
   (i) United States Rubber.

(j) Studebaker.
(k) Pierce-Arrow.

8. Determine the relative percentages of stocks and bonds issued by the following companies:
(a) Southern Pacific.
(b) Union Pacific.
(c) New York, New Haven and Hartford.
(d) Brooklyn Rapid Transit.
(e) People's Gas (Chicago).
(f) Laclede Gas (St. Louis).
(g) American Smelting and Refining.
(h) American Hide and Leather.
(i) General Electric.
9. In 1918 Chesapeake and Ohio earned 14.06 per cent on its common stock after providing for all charges, including interest on bonds. What would have been the percentage earned had the entire capitalization been stock?
10. In the period from 1911 to 1920, New Haven Debenture 4's of 1955 declined from 94⅜ to 39½. Account for the decline.
11. The General Electric Debenture 6's of 1940 are redeemable at 105 at any interest date. What effect has this upon the market price of the bonds?
12. Account for the variance in the yields on the following Union Pacific securities as of a certain date in 1916:

Common stock	5.44%
Preferred stock	4.82
Convertible 4's, 1927	4.70
First & Ref. 4's, 2008	4.40
First & L. G. 4's, 1947	4.10

Chapter VIII

CORPORATION BONDS AS INVESTMENTS

1. Prepare a list of the various types of bonds which have been issued by each of the following companies:
   (a) Erie Railroad.
   (b) Northern States Power.
   (c) Bethlehem Steel.
2. What is the security behind each of the following bonds?
   (a) Hudson and Manhattan First Lien Refunding 5's of 1957.
   (b) New York Connecting Railroad First 4½'s of 1953.
   (c) Northern Pacific-Great Northern Joint Convertible 6½'s of 1936.
   (d) Associated Gas and Electric First 5's of 1939.
   (e) Bethlehem Steel Equipment Trust 7's of 1921-1930.
   (f) American Cotton Oil 20-year 5's of 1931.
   (g) Baltimore and Ohio First 4's of 1948.
   (h) New Orleans and Northeastern Prior Lien 5's of 1940.
3. What is the numerical sequence of the lien which secures the Erie Convertible 4's of 1953?
4. The Richmond, Fredericksburg and Potomac Railroad has outstanding "Guaranteed Mortgage 6 per cent and 7 per cent stocks." Should the securities be termed bonds instead of stock?
5. The Northern Central Railway Second General 5's of 1926 have a sinking fund provision whereby $30,000 annually is appropriated to buy bonds at par. No offerings were received from 1894 to 1920. Why?
6. Are the following bonds secured by open or closed mortgages:
   (a) Kansas City Terminal First 4's of 1960.
   (b) Adirondack Electric Power First 5's of 1962.
   (c) American Gas 100-Year 6's of 2016.
   (d) American Gas and Electric Debenture 6's of 2014.
   (e) Bethlehem Steel Purchase Money and Improvement 5's of 1936.
7. Prepare a simplified form of income statement as illustrated below to show the average results of the past five years for each of these companies: (1) United States Steel; (2) General Electric; (3) Pennsylvania Railroad; (4) New York Central; (5) Chicago, Rock Island and Pacific.

Operating revenues	$1,000,000
Operating expenses	700,000
Operating income	$300,000
Other income	100,000
Total income	$400,000
Fixed charges	200,000
Net income	$200,000
Dividends paid	150,000
Surplus	$50,000

8. From the table which appears on page 110, prepare a chart analysis of the financial condition of each of the following companies. Use as a base the average gross revenues for the past five years. In capitalizing the net earnings of industrial companies, use 10 per cent to 25 per cent, according to the nature of the business:
   (a) American Agricultural Chemical.
   (b) American Locomotive.
   (c) American Woolen.
   (d) United States Rubber.
   (e) Anaconda Copper.
   (f) Consolidated Gas (N. Y.)
   (g) Montana Power.
   (h) Atchison, Topeka and Santa Fe.
   (i) Delaware and Hudson.
   (j) Baltimore and Ohio.
9. The Imperial Automobile Company has outstanding three bond issues as follows:

First 5's	$10,000,000
Second 6's	5,000,000
General 6's	5,000,000

   During the year 1919 the operating revenues were $7,000,000 and the operating ratio was 80 per cent. During the year 1920 the operating revenues were $6,000,000 and the operating ratio was 85 per cent.
   (a) Determine the factor of safety for each of the bond issues during 1919.
   (b) Determine the factor of safety for each of the bond issues during 1920.
   (c) Would it have been more advisable in determining the factor of safety for the general 6's in 1919, to have taken the total interest charges for all three issues and to have compared this amount with the income available to pay these charges, than to take simply the amount of income available to pay the interest on the general 6's in comparison with the interest charge on the single issue?
10. Chart together the Bradstreet index of wholesale prices and the Annalist average yield, of ten high-grade bonds for the period from Jan. 1, 1915, to date.
11. Bring the appended table—prepared by Clark-Dodge & Co.—up to date by adding a column to cover the current month.

QUANTITY OF COMMODITIES EXCHANGEABLE FOR
$100 UNION PACIFIC 1st 4's

		May, 1914	May, 1920	Jan., 1921
Unskilled day labor	days	55.4	12.6	16.4
Sugar—Ref. Gran.	lbs.	2,395	350	1,038
Cotton	lbs.	746	188	512
Steel Rails	tons	3.46	1.40	1.82
Steel sheets	lbs.	5,243	1,400	1,885
Pig iron	tons	6.58	1.64	2.36

		May, 1914	May, 1920	Jan., 1921
Copper	lbs.	685	405	656
Wool—100 grades (avge.)	lbs.	408	114	828
Wheat	bu.	88½	24	40
Corn	bu.	121	34⅓	86⅓
Live beef	lbs.	1,311	664	1,060
Leather—hemlock sole	lbs.	323	148	234
Oil—Ref. petroleum	gal.	746	296	283
Coal—Nut anthracite	tons	15½	5.6	5.8
Newsprint	lbs.	4,311	700	1,261
Brick—Common	M.	13.85	3.08	4.55
Yellow pine	feet	3,233	700	1,323

12. Why does a collateral trust bond often command a higher price than the aggregate of the collateral itself?

13. Western Electric 7's of 1925 became converted into the preferred stock of the same company on April 1, 1922. During the week preceding April 1, the bonds advanced in price almost three full points. Account for the advance.

14. If it is assumed that two bonds are equally desirable as investments in all respects other than the fact that one is eligible for New York savings banks investment, what will be the difference in the yields of the securities?

15. With reference to the New York and Erie First 4's of 1947:
    (a) What is the security behind the issue?
    (b) Why have not the bonds a "legal" status?
    (c) Why is the yield on Fifth 4's of 1928 practically the same as on the First 4's?

16. With reference to convertible bonds:
    (a) Why did the holders of $507,000 of St. Paul Consolidated Debenture 7's of 1905 fail to convert into preferred stock prior to maturity in view of the fact that the conversion ratio was par for par and the preferred stock was quoted around 170?
    (b) The Brooklyn Rapid Transit 4's of 2002 were convertible at par into common stock up to July 1, 1914. Should the holder of any of these bonds have converted? What effect did the termination of the conversion period have upon the market price of the bonds?
    (c) Western Electric 7's of 1925 are convertible into 7 per cent preferred stock at par from April 2, 1922, to Oct. 1, 1924. Under what circumstances will a holder elect to convert? Will the market price of the bonds after Oct. 1, 1924, differ materially from that prior to that date?

17. Are all bonds of the same issue uniformly secured under the mortgage indenture?

18. How may the holders of debenture bonds be assured against future issues with superior liens?

19. (a) Is there any limit upon the amount of bonds which may be issued under the mortgage securing the New York Central Refunding and Improvement bonds due 2013?
    (b) For what purposes may additional bonds be issued?
20. (a) In what various ways may bonds be issued under an identical mortgage with different maturity dates?
    (b) When maturity dates differ, how are the interests of the remaining bondholders protected?
21. (a) Distinguish between bonds issued in series and bonds with serial maturities.
    (b) In which class belong the Pennsylvania Railroad General Mortgage bonds?
22. The Montana Power Co. in 1914 sold some of its First 5's at 94. A second lot of these bonds was offered in 1918 at 89. Could the original purchasers object?
23. The Adams Express Collateral Trust 4's of 1948 were outstanding to the total amount of $7,291,500 on August 20, 1921. The collateral securities as of that date are appended:

	Par Value
Alabama Great Southern 1st 5's, 1927	$84,000
Atlantic City R. R. Co. 1st Cons. 4's, 1951	265,000
Atchison, Topeka & Santa Fe Trans. 1st 4's, 1958	200,000
Atlantic Coast Line L. & N. Coll. 4's, 1952	200,000
Baltimore & Ohio-P., L. E. & W. Va. Ref. 4's, 1941	408,000
Big Sandy Ry. 1st 4's (C. & O.), 1944	741,000
Birmingham Terminal Co. 1st 50-year 4's, 1957	150,000
Boonville R. R. Bridge 1st 4's, 1951	12,000
Brooklyn Union Elevated 4-5, 1st 5's, 1950	10,000
Chesapeake & Ohio Ry. Gen. 4½'s, 1992	260,000
Chesapeake & Ohio-Craig Valley 1st 5's, 1940	31,000
Chicago & Eastern Illinois Ref. & Imp. 4's, 1955	100,000
Chicago, Rock Island & Pacific 1st & Ref. 4's, 1934	100,000
Chicago & Western Indiana Cons. 4's, 1952	100,000
Cleveland Term. & Valley 1st 4's, 1995	100,000
Erie R. R. Gen. Lien 4's, 1996	375,000
Erie R. R. Prior Lien 4's, 1996	90,000
Erie R. R.-Pennsylvania Coll. 4's, 1951	100,000
Hocking Valley 1st Cons. 4½'s, 1999	100,000
Iowa Central 1st and Ref. 4's, 1951	100,000
Lake Shore & Michigan Southern 25-year 4's, 1931	1,352,000
Long Island (North Shore Br.) 1st Cons. 5's, 1932	100,000
Louisville & Jeff. Bridge 1st 4's, 1945	25,000
Louisville & Nashville Unified 4's, 1940	100,000
Louisville & Nashville-Southern R. R. 4's, 1952	200,000
Michigan Central R. R. 20-year Deb. 4's, 1929	120,000
Minn. & St. Louis 1st Ref. 4's, 1949	150,000
New York Bay Exten. 1st 5's, 1943	100,000
New York, Chicago & St. Louis Deb. 4's, 1931	300,000
N. Y., Susquehanna & West'n 1st Ref. 5's, 1937	100,000

	Par Value
New Orleans Terminal 1st 4's, 1953, Series "A"	615,000
Norfolk & Western Div. 1st L. & G., 4's, 1944	100,000
Norfolk & Western 1st Cons. 4's, 1996	411,000
Philadelphia, Baltimore & Washington 1st 4's, 1943	200,000
Providence Securities Co. 50-year Deb. 4's, 1957	100,000
Reading-Jersey Central Coll. 4's, 1951	232,000
Rio Grande West. Cons. 4's, 1949, Sub-Ser. "A"	100,000
Southern Ry.-East Tenn. Reorg. Lien 5's, 1938	98,000
Southern Ry.-St. Louis Div. 1st 4's, 1951	25,000
Southern Ry. 1st Cons. 5s, 1994	5,000
Terminal Assoc. of St. Louis Gen. Ref. 4's, 1953	100,000
Toledo & Ohio Central Gen. 5's, 1935	50,000
Union Depot of Columbus 50-year S. F. 7's, 1923	13,000
Union Depot at Columbus Gen. 4½'s, 1946	130,000
Washington Terminal 1st 3½'s, 1945	200,000
Western New York & Pennsylvania Gen. 4's, 1943	115,000
Wheeling & Lake Erie Ref. 4½'s, 1966	100,000

(a) What is the present value of the collateral?

(b) Does the fact that the company is an unincorporated association affect the position of the noteholders?

Chapter IX

STOCK AS AN INVESTMENT

1. What has been the dividend record of the following companies:
   (a) Pennsylvania Railroad.
   (b) Illinois Central.
   (c) Delaware and Hudson.
   (d) Chicago, Milwaukee and St. Paul.
   (e) Erie.
   (f) Consolidated Gas Co. (N. Y.)
   (g) United Gas Improvement Co.
   (h) Interborough Rapid Transit Co.
   (i) American Telephone and Telegraph.
   (j) Diamond Match Co.
   (k) General Electric Co.
   (l) United States Steel Corp.
   (m) American Sugar Refining Co.
2. How many times has the preferred dividend requirement been earned during each of the past ten years by each of the following companies:
   (a) United States Steel.
   (b) United States Rubber.
   (c) Bethlehem Steel.
   (d) American Locomotive.
   (e) National Lead.
   (f) Pressed Steel Car.
3. Why is the payment of dividends out of surplus when current earnings are insufficient regarded in some circles as unsatisfactory practice?
4. Compute the current yields on the guaranteed stocks shown in the table on page 114.
5. In what respects does the stock of the Albany and Susquehanna on which dividends at the rate of 8 per cent per annum are guaranteed by Delaware and Hudson, offer investment advantages over the bonds directly issued by Delaware and Hudson?
6. The initial dividend on the common stock of Allis-Chalmers was paid in August of 1920. Why was it impossible to pay dividends on this stock previously?
7. Compare, on the basis of investment desirability, the stocks of the Bethlehem Steel Corporation.
8. From the most recent income statement available, show the order in which the various securities of a representative company, such as Delaware and Hudson, participate in the distribution of earnings. Determine the factor of safety for each issue.
9. Determine the book value of a share of common stock in each of the following companies before and after deducting intangible assets:
   (a) Cluett, Peabody and Co.
   (b) United States Steel Corp.
   (c) United States Rubber Co.

(d) General Electric Co.
(e) American Cotton Oil Co.
(f) American Tobacco Co.
(g) Coca-Cola Co.

10. What is the valuation placed upon "goodwill" in the balance sheets of the following companies:
    (a) United States Steel Corp.
    (b) American Woolen Co.
    (c) General Electric Co.
    (d) Cluett-Peabody and Co.
    (e) American Cotton Oil Co.
    (f) Coca-Cola Co.
    (g) American Tobacco Co.
    (h) F. W. Woolworth Co.
    (i) Eastman Kodak Co.
11. (a) What effect has book value upon the market price of a security?
    (b) Has book value equal significance in the case of (1) railroads; (2) public utilities; (3) industrials; (4) bank stocks?
12. (a) In what important respects does an investment in bank stocks differ from the usual stock commitment?
    (b) In March of 1922, 20 shares of Guaranty Trust Co. (N. Y.) stock were sold at 202; the last preceding sale at auction was at 318 in February of 1921. Account for the change in price.
13. Compare the average current yields on the preferred and common stocks of the following companies: United States Steel; American Locomotive; National Biscuit; National Lead; American Woolen.
14. Compare the book value of a share of Goodyear Tire and Rubber common stock with its proportionate equity in the assets based upon the current market value of the underlying issues.
15. Recently the common stockholders of the Standard Oil Company of New Jersey were given the right to subscribe to new preferred stock to the extent of 100 per cent of their holdings. These rights were quoted in the open market originally at about 17. What were the various ways in which a stockholder might "cash his privilege"?
16. (a) What is the so-called New England school of corporate financing?
    (b) Why are the companies of this type better able to withstand periods of depression?
17. When the common stockholders of the Chicago, Milwaukee and St. Paul recently decided to make the Puget Sound extension, was the position of the preferred stockholders affected?
18. Prior to the San Francisco disaster, the Hartford Fire Insurance Co. balance sheet showed capital stock at $1,250,000 and surplus at $5,000,000. The loss arising out of the disaster was about $7,000,000. Outline the manner in which insolvency was avoided by an increase in the capitalization of the company.
19. What are the rights and the obligations of a stockholder?
20. In April of 1922, the common stock of Union Sulphur Co. was quoted at about $75,000 a share; and the common stock of the Cuba Co. at about $80,000 a share. Account for these prices.

Chapter X

39-61

RAILROAD SECURITIES

1. (a) What is the ratio between stocks and bonds outstanding of the combined American railroads?
   (b) What effect has this upon the investment status of the securities?
   (c) Why have railroad companies found it harder to sell stock than bonds during recent years?
   (d) In what manner have Pennsylvania and Atchison been able to increase their stock issues?

regulatory

2. What are the functions of the Inter-State Commerce Commission?
3. What are the principal railroad systems in each of the following geographical sections: New England; North Atlantic; Southeastern; Central; Southwestern; Mountain-Pacific.
4. What information of investment analysis value may be secured from the annual stockholder's report?
5. How does geographical location affect each of the following roads: New Haven; New York Central; Pennsylvania; Southern; Burlington; Northern Pacific; Southern Pacific; Missouri, Kansas, and Texas; Western Pacific.
6. (a) What are the five sources of operating revenues?
   (b) What are the relative percentages of each for New Haven; Pennsylvania; Atchison?
   (c) How are railroad rates determined?
   (d) Are railroads permitted to compete on the basis of rates?
   (e) What are the principal classes of commodities carried?
   (f) Which classes afford the greater profits?
   (g) What are the advantages of diversified commodities?
   (h) How is traffic volume measured?
   (i) What effect has distance carried, upon operating income?
   (j) What effect have rate increases and decreases upon traffic?
   (k) What effect has transportation cost upon commodity prices?
7. (a) What are the five divisions of operating expenses?
   (b) What were the relative percentages of each, based upon operating revenues, for the combined roads for the years 1915, 1916 and 1917?
   (c) What is meant by "skimping maintenance"? How is it accomplished? What is the purpose?
   (d) What are the advantages and limitations in the use of operating ratio as an investment criterion?
   (e) Why is "expense per train mile" a fairer criterion?
   (f) In 1917 Rock Island expended 12.12 per cent of operating revenues in maintenance of way and structure against 10.62 per cent

for Burlington. How may it be shown that Burlington really made a better showing than Rock Island in this respect?
(g) Is there any relationship between the amounts expended for maintenance of equipment and hire of equipment?
(h) What is the importance of adequately providing for maintenance of equipment?
(i) What are the two principal costs included in transportation charges? Over which has the road least control?
(j) Trace the changes in percentages of revenues absorbed in transportation expense for any large road during the past ten years.

8. (a) What are the sources of non-operating income?
(b) In what roads is this income of large importance?

9. Arrange in the order of priority of claim the following charges against operating revenues:
(a) Rent of leased lines.
(b) Taxes.
(c) Dividends.
(d) Wages and salaries.
(e) Depreciation.
(f) Interest on bonds.
(g) Dividends on guaranteed stocks.
(h) Interest on guaranteed bonds.
(i) Hire of equipment.
(j) Materials purchased.

10. Compare the dividend policy of the New Haven prior to 1910 with that of the Pennsylvania.

11. Compare the cash position of the following companies:

December 31, 1920	Erie Railroad	Columbia Graphophone
Current assets	$47,131,531	$34,914,272
Current liabilities ...	44,141,132	16,378,195
Net working capital.	$2,990,309	$18,536,077

12. What was the "test period" used as a basis for guaranteed earnings during the Federal operation from 1918 to 1920?

13. Show by diagram how the noteholder's equity increases during the life of equipment trusts.

14. (a) What is the Philadelphia plan for the purchase of railroad equipment and why is it so called?
(b) Is the Philadelphia plan superior to the ordinary equipment mortgage?
(c) May equipment notes be issued up to 100 per cent of the value of the equipment?
(d) Should the maturity exceed ten years?
(e) May redemption be with sinking fund rather than serial?
(f) Does the equipment manufacturer ever guarantee the notes?
(g) Show by diagram the manner in which the New York Central Lines Equipment Trust 4½'s of 1912-1927 are secured.

(h) How have equipment notes fared in reorganizations?
(i) In 1920 Erie Equipments were selling to yield about 8 per cent, whereas Union Pacific Equipments were yielding less than 7 per cent. Account for the difference in yields.

15. Certain equipment notes which were delivered to the Government by the roads following the termination of Federal control in payment of equipment purchased by the Government, were sold to investors in 1921 under an agreement whereby 33⅓ per cent of the notes of each issue were retained by the Government and stampd subordinate to those sold. Why was this done?
16. Prepare seasonal variation index numbers for railroad net earnings on a monthly basis which will enable the annual net earnings to be estimated from those of any single month.
17. How may the trend of railroad earnings be predetermined to a certain extent from statistics of idle cars and car loadings?
18. Refer to page 1740 of the Commercial and Financial Chronicle of October 22, 1921, and set up in parallel columns for the years 1915 and 1920 the principal items in operating revenues and operating expenses, with respective percentages.
19. Prepare "pie" charts to show the distribution of each dollar of revenue received by the railroads in 1915 and 1920.
20. Compare New York Central and Pennsylvania; B. & O. and C. & O.; Seaboard Air Line and Atlantic Coast Line; St. Paul and Northern Pacific; Atchison and Southern Pacific; Missouri Pacific and 'Frisco; for the years 1915 and 1920 as to:
    (a) Gross operating revenue per mile operated.
    (b) Commodities carried.
    (c) Distance carried.
    (d) Traffic volume.
    (e) Car loading.
    (f) Revenue per train mile.
    (g) Operating ratio.
    (h) Expenses per train mile.
    (i) Hire of equipment.
    (j) Non-operating income.
    (k) Fixed charges.
    (l) Dividends earned and paid.
    (m) Capitalization per mile.
21. (a) What has been the new mileage added annually by the railroads of the United States since 1900?
    (b) What is the annual requirement for replacement of equipment?
    (c) What was the total number of each class of equipment held by the combined roads as of Dec. 31 past?
    (d) Why is a surplus of at least 300,000 freight cars a normal condition in May of each year?
22. What is the comparison between the capitalization and the physical valuation as set by the Government under the Act of March 1, 1913,

on the following roads: Rock Island; Central of Georgia; Kansas City Southern; Western Pacific?

23. What railroads with a mileage exceeding 1,000 are currently in receivership?
24. Compare the relative amounts of bonds and stocks outstanding for the New Haven system as of 1899 and 1922.
25. Select one of the large railroad systems and determine the average yield which may be obtained from (1) the senior bond issues; (2) the junior bond issues; and (3) the equipment note issues.
26. The interest rate on the Southern Railway Development and General Mortgage bonds due in 1956 cannot, under the terms of the mortgage exceed 4 per cent. In January, 1922, $30,000,000 were sold bearing an interest rate of 6½ per cent. To what extent is the payment of the additional 2½ per cent assured?
27. What is the investment position of the Richmond and Petersburg Consolidated 4½'s of 1940?
28. Account for the fact that in the spring of 1916 the yields on the bonds of the subsidiary companies of the Southern Pacific system, practically all of which were uniformly guaranteed, varied from 4.30 to 7.40 per cent.
29. Why do the Boston Terminal 3½'s of 1947, guaranteed by New Haven and Boston and Albany, sell to yield about 1 per cent less than the general credit of either guaranteeing road?
30. With reference to the Transportation Act of 1920:
    (a) If Lackawanna and Erie should desire to consolidate, would it be permissible?
    (b) What method of payment was decided upon for the equipment purchased by the Government and turned over to the roads?
    (c) What was the purpose of the revolving fund?
    (d) Earnings in excess of the fair return are to be divided in what manner?
    (e) What is the basis for rate-making?
    (f) What rate districts were established by the Inter-State Commerce Commission?
    (g) What was the valuation set upon the total railroad property by the I. C. C. and how did this valuation compare with the total book values?
    (h) For what period was 5½ per cent set as a fair rate of return?
31. With reference to the 1921 report of the Canadian Pacific Railway Co.:
    (a) Is the payment on the Consolidated 4 per cent Debenture stock a fixed or a contingent charge?
    (b) Was the operating income sufficient to pay the dividends on the Preference and Ordinary stocks?
    (c) What were the relative amounts of operating and non-operating income?
    (d) What were the sources of non-operating income?

Chapter XI

PUBLIC UTILITY SECURITIES

1. (a) What are the general functions of a State public utility commission? Regulatory
   (b) For what purposes will a commission approve the issuance of securities? Construction, buy new property
   (c) Why do commissions act more conservatively in approving bond issues than in approving stock issues? Better
   (d) Why have the commissions in the various States been reluctant to grant rate increases during recent years, although the increases were apparently justified by higher operating costs? To what extent have increased rates been granted?
2. (a) Why has the holding company become so predominant in the public utility field?
   (b) Distinguish between the functions performed respectively by the following holding companies:
      (1) Electric Bond and Share Co.
      (2) Public Service Corporation of N. J.
      (3) Cities Service Co.
      (4) Electric Securities Co.
   (c) Why are the securities issued by holding companies mostly of the collateral type?
3. Discuss from the standpoint of a stockholder, the issuance of the Interborough-Metropolitan (N. Y.) Collateral Trust 4½'s of 1956 which were exchanged for the common stock of the Interborough Rapid Transit Co. in 1906.
4. Revise the table on page 169 to cover operations for last year rather than for 1918 as shown.
5. Why do certain States, notably New York and Pennsylvania, prohibit savings banks from investing in public utility securities?
6. Chart the intercorporate relationship of the various companies comprising the Interborough system in New York City.
7. What are the principal difficulties which confront utility companies, and how do the respective classes rank with regard to these difficulties?
8. Do the securities of each of the following companies meet the requirements for a good utility investment as stated on page 169?
   (a) Cities Service Co.
   (b) North American Co.
   (c) Interborough Consolidated Co. (N. Y.)
   (d) Consolidated Gas Co. (N. Y.)
   (e) Pacific Gas and Electric Co.
   (f) Detroit Edison Co.
   (g) Montana Power Co.

9. What was the total depreciation during the period from 1912 to 1921 in the market value of the following securities of the transit companies in New York City?
   (a) Interborough Consolidated:
      Common.
      Preferred.
      Int.-Met. Collateral Trust 4½'s of 1956.
   (b) Interborough Rapid Transit Co.:
      First and Refunding 5's of 1966.
   (c) Manhattan Elevated:
      Common.
      Consolidated 4's of 1990.
   (d) New York Railways:
      Common.
      Refunding 4's of 1942.
      Adjustment 5's of 1942.
10. In February of 1922 a member of the Transit Commission in New York City made the statement that each day 4,000 more people rode on the transit lines of the city than on the day before. Is this statement evidenced by the following statistics of passengers carried on all lines?

1919	2,079,944,297
1920	2,365,587,369
1921	2,491,909,178

11. How did the Series Mortgage help the utility companies secure new capital in 1921?
12. What effect has the enactment of the Federal Water Power Bill had upon hydro-electric enterprises?
13. What is the "superpower" plan as contemplated for the North Atlantic States?
14. (a) What are the various methods of valuing public utility property?
    (b) Which method has been approved by the Public Utility Committee of the Investment Bankers' Association?
    (c) Which method was followed by the Transit Commission in valuing the traction lines in New York City in 1921?
15. What is the current yield on the following securities of the Public Service Corporation of New Jersey?
    (a) General 5's of 1959.
    (b) Secured 7's of 1941.
    (c) Perpetual 6's.
    (d) Preferred stock.
    (e) Common stock.
16. What is the security behind the Fifth Series Collateral Trust 5's of the Railway and Light Securities Co. of Boston?
17. What are the "Bonbright" five arguments in favor of public utility securities?

18. Recently the Central Light and Power Co. of Pennsylvania sold preferred no par stock which was to receive dividends at the rate of \$3.20 for the first year, \$3.60 for the second year, \$4.00 for the third year and thereafter. Why was this dividend arrangement adopted? What other large utility company followed the same practice? Why has the redemption value on this stock been placed at \$70 per share?

19. Why has a public utility company which supplies a product an inherent superiority over one which supplies a service?

20. Analyze the investment position of the 14th series of Collateral Trust bonds of the Electric Securities Co. at the date of issue in 1916.

21. During February of 1922 the common stock of Manhattan Elevated dropped from 49⅛ to 41. Account for the decline.

22. With reference to the surface trolley lines in the city of Chicago:
    (a) What companies are operating and what is the plan of operation?
    (b) What is meant by "residue receipts"?
    (c) How are the residue receipts divided?
    (d) What is included in "joint account" expenses?
    (e) To what extent does the city of Chicago share in the earnings?
    (f) What is the present rate of fare?
    (g) To what extent are the operating companies insured a satisfactory return upon invested capital?

Chapter XII

INDUSTRIAL SECURITIES

1. If the average 1916 net income is assumed to be 100, the average 1919 net income of selected industries in the enumerated lines was as follows: Textiles, 265; Rubber, 203; Iron and steel, 45; Copper, 15. Account for the variations.
2. (a) Why do certain industrial companies refuse to publish financial statements?
   (b) What financial information must be published by companies which desire security listing on the New York Stock Exchange?
   (c) Why is it desirable that industrial companies state gross sales as well as net sales in their published income accounts?
   (d) How often does each of the following companies publish an income statement: United States Rubber; General Motors; United States Steel?
3. May any of the following companies be regarded as monopolies: Ford Motor; Cluett-Peabody; American Woolen; Eastman Kodak; Coca-Cola; Pullman; American Tobacco?
4. To what extent do the following companies have control over the sources of raw material used in the manufacture of their products: American Hide and Leather; United States Steel; United States Rubber; International Paper?
5. To what extent have the following companies control over the manufacture of the raw material and partly finished goods they produce: Anaconda Copper; American Beet Sugar; Standard Oil?
6. To what extent are the earnings of the following companies affected by the nature of their products: American Locomotive; Central Leather; Studebaker; Utah Copper; F. W. Woolworth; Armour and Co.?
7. Which of the following companies would be adversely affected by the enactment of low import duties: American Woolen; General Electric; International Harvester; International Mercantile Marine; American Beet Sugar; B. F. Goodrich Co.?
8. Bring up to date the table on page 187 and add any industrial preferred stocks which have an unbroken dividend record for at least 12 years.
9. (a) In what important respect should dividends received upon mining stock be regarded differently from those received from other stocks?
   (b) If Utah Copper is purchased to yield 12 per cent, how long will it take for the holder to receive the return of his principal and meantime receive a yield of 7 per cent on the commitment, assuming that the dividend rate is unchanged and the annual installments on account of principal are reinvested at 4 per cent?

(c) What effect has each of the following operating conditions upon the prosperity of mining companies: geographical location; transportation facilities; climatic conditions; labor; topography?
(d) Which are the "porphyry" mines and why are they so called?
(e) How are the ore reserves of a mine determined?

10. Why did Anaconda Copper acquire the American Brass Co. in 1921?
11. What was the range in the prices of Alaska Gold Mines stock between 1915 and 1921? Account for the movement.
12. The market value of the securities of 23 representative oil companies in 1919 was $7,198,000,000. The same securities in 1922 were valued at $4,767,000,000. Account for the decline.
13. The stadium at the University of Washington was built by the Associated Students of University of Washington at a cost of about $500,000. A bond issue of $250,000 was offered. What was the investment status of the bonds?
14. (a) How did the closing of the copper mines in 1921 improve the position of the silver mining companies?
    (b) How did the operation of the Pittman Act help the silver mining companies?
    (c) What is the principal market for silver?
15. Analyze the investment position of the Copper Export Association 8 per cent notes due 1922-1925.
16. Analyze the following statement and determine whether or not the company made a profit for the period:

CLUETT, PEABODY & CO.—1920

Total receipts	$32,817,628
Expenses and interest	30,596,532
Balance	$2,221,096
Depreciation	282,804
Net profit	$1,938,292
Dividends	2,014,070
Deficit	$75,778
Previous surplus	8,840,368
Net surplus	$8,764,590
Commitment reserve	$637,758
Inventory depreciation	2,356,060
Adjusted surplus	$5,770,772

17. (a) What conclusions were reached by L. P. Ayres of the Cleveland Trust Co. in his review of the automobile industry in 1921?
    (b) On the basis of Mr. Ayres' conclusions, what motor stocks offer the best opportunities at the present time?

18. What is the current yield on the following industrial bonds?
    (a) U. S. Steel S. F. 5's of 1963.
    (b) Indiana Steel 1st 5's of 1952.
    (c) Armour and Co. 1st 4½'s of 1939.
    (d) Amer. Smelt. and Ref. 1st A 5's of 1947.
    (e) U. S. Rubber 1st and Ref. 5's of 1947.
    (f) Westinghouse Electric 7's of 1925.

19. What is the investment position of the General Motors Building Corporation First 7's due 1922-1946?

20. Why was American Agricultural Chemical Co. obliged to discontinue preferred dividends in 1921 after an unbroken record for 22 years?

21. How may the efficiency of the management of an industrial corporation be judged?

22. Refer to the recent balance sheet of an industrial company, such as General Electric, and analyze it according to the following tests:
    (a) Are the current assets at least twice the current liabilities?
    (b) Does the item of accounts receivable exceed 25 per cent of the annual sales?
    (c) Does the inventory account exceed by a large margin the accounts receivable?
    (d) Does the property valuation exceed ten times the net earnings of the company?
    (e) To what extent would the surplus account be affected by the elimination of intangible assets such as goodwill?

23. (a) Why do industrial companies consolidate?
    (b) Is it advantageous from the standpoint of the security holders that industrial companies consolidate?
    (c) How successful have been the following consolidations?
        (1) International Paper.
        (2) American Car and Foundry.
        (3) Republic Iron and Steel.
        (4) United States Steel.
        (5) International Mercantile Marine.

24. Comment upon the appended statement of the capitalization of Wilson and Co., as of January 1, 1922:

Common stock	$20,000,000
Preferred stock	10,328,600
Mortgage bonds	23,047,000
Convertible bonds	26,848,000

25. The balance sheet of American International Corporation as of January 1, 1922, showed Investments listed at $29,216,287. Should this item have been carried at cost or market value as of that date?

26. Compare the conversion privileges of the American Agricultural Chemical First 5's of 1928 and of the Wilson & Co. 10-year 6's of 1928.

27. The American Chicle Co. agreed to keep an excess of current assets over current liabilities of at least 150 per cent of the amount of the outstanding 6 per cent Serial Notes of 1927. On December 31, 1921, the percentage of excess fell below the requirement. What might the noteholders do?

28. Account for the depreciation policy of the American Can Co. as illustrated in the appended statement showing charges for this purpose for the years 1906 to 1914:

1906	$184,327
1907	561,135
1908	405,634
1909	545,526
1910	633,565
1911	2,500,000
1912	983,886
1913	1,212,762
1914	750,000

Chapter XIII

REAL ESTATE MORTGAGES

1. Define (a) deed; (b) mortgage; (c) mortgagor; (d) mortgagee.
2. What is understood by each of the following terms in a mortgage?
   (a) Granting clause.
   (b) Habendum clause.
   (c) Defeasance clause.
   (d) Consideration.
3. (a) What is a covenant in a mortgage?
   (b) Why are covenants inserted?
   (c) What covenants usually appear?
   (d) What penalty is usually imposed in the event that a covenant is not observed?
4. (a) What is meant by registration of a mortgage?
   (b) What is the purpose of registration?
5. What disadvantages are involved in granting mortgage loans upon:
   (a) Vacant land?
   (b) Special utilizations, such as churches, factories, theatres, clubs, etc.?
   (c) Land unsuitably improved?
6. A piece of real estate is valued at $100,000 against which appear a first mortgage of $55,000 and a second mortgage of $20,000.
   (a) What is the margin of safety for each mortgage?
   (b) What is a conservative margin of safety for a first mortgage? For a second mortgage?
   (c) Why are the terms of a second mortgage usually more favorable to the lender than the terms of a first mortgage?
7. What are some of the difficulties involved in the accurate appraisal of real estate?
8. How are real estate values affected by the trend of business prosperity?
9. To what extent are real estate values affected by the shifting of commercial and residential sections of a city?
10. What expenses are involved in foreclosure proceedings?
11. How may adequate safeguards be provided against the inherent risks in mortgage loans?
12. Under what conditions are savings banks and insurance companies in New York State permitted to invest funds in real estate mortgages?
13. (a) What are the advantages and disadvantages of investing in farm mortgages?
    (b) To what extent has the farm mortgage investment market been affected by the operation of the Federal Farm Loan Banks?

Chapter XIV

FOREIGN INVESTMENTS

1. (a) What is understood by the expression that "trade follows the flag"?
   (b) What conditions induced England to invest in the United States after 1830?
   (c) What does a nation gain from foreign investments?
2. With reference to the foreign trade of the United States:
   (a) Prepare a table showing the value of exports, imports, and trade balance of the United States for each of the past three years, according to Grand Divisions.
   (b) What proportion of the total exports for each of the past five years comprised (1) foodstuffs; (2) raw materials; (3) manufactured goods.
   (c) What was the relationship between the value of manufactured goods exported and the value produced in each of the following years: 1904, 1909, 1914, 1919?
3. To what extent is Europe indebted, publicly and privately, to the United States at the present time?
4. (a) How are trade balances between nations adjusted in normal times?
   (b) What percentage of the total gold monetary stock of the world is held by the United States?
   (c) What function does the purchase of foreign securities serve in the adjustment of trade balances?
5. Explain the manner in which the Baldwin Locomotive Works financed the sale of railroad locomotives to Belgium in 1921.
6. (a) What were the principal issues of foreign securities sold in the United States prior to 1914?
   (b) Distinguish between internal and external loans.
   (c) Why is the City of Copenhagen 4 per cent Loan of 1949 known as a multiple currency loan?
   (d) What is the advantage of a multiple currency bond?
7. (a) What is known as "the doctrine of Lord Palmerston" in the field of foreign investment?
   (b) Differentiate between the American and English government policy toward the protection of private capital invested abroad.
8. What are the eight important factors to be considered in the analysis of a foreign security?
9. (a) Why did the American banking group in the Chinese consortium in 1921 maintain that China should pay interest upon the Hukuang bonds of German issue?
   (b) What provision in the Argentina Internal 5's of 1945 takes into consideration a similar contingency?

10. (a) What was the purpose of the Edge amendment to the Federal Reserve Act in 1920?
    (b) Did the Edge Act serve its purpose?
    (c) Why are the domestic banks unable satisfactorily to finance foreign trade?
    (d) What is an investment trust as the term is used in England?
11. The Central Pacific European 4's of 1946, principal and interest payable either in pounds sterling or francs at the option of the holder, par value 500 francs or £19 15s., were quoted in the United States in March of 1922 at $65 each. What was the yield to an American investor (a) maturity not considered; and (b) maturity considered?
12. What is the *Ter Meulen* plan for financing foreign trade? What would have been the result, had Germany had outstanding *Ter Meulen* bonds when the war began in 1914?
13. (a) Did the United States publicly or privately have any external bond issues prior to 1914?
    (b) Will the holder of a Republic of France 8 per cent bond (par $1000), due in 1945, profit from an appreciation in the value of the franc?
    (c) Will the holder of a Republic of France 6 per cent bond (par 1000-f.), due in 1931, profit from an appreciation in the franc?
    (d) Will the holder of a Kingdom of Belgium 6 per cent note (par $1000), due in 1925, profit from an appreciation in the Belgium franc?
14. What is the security behind the State of San Paulo External 8's, due in 1936?
15. What are the total external and internal obligations of the following governments: England; France; Belgium; Germany; Italy; United States?
16. What is the effect of premium redemption features upon the market for foreign securities in this country—as is illustrated in the case of the Belgium 7½'s due in 1945?
17. (a) If the current monthly trade balances are used as a basis, what will be the trade balance of the United States for this calendar year?
    (b) What is the annual interest charge on the European debt to the United States?
    (c) Is the American investment market able to absorb the foreign securities necessary to finance the trade balance and interest payment?
    (d) Even if so, will it be advisable to do so?
18. What is the present discount on the currencies of the leading European nations in terms of American money at the present time?
19. Upon what basis was the paper currency of the following nations demonetized or readjusted?
    (a) United States continental currency in 1791.
    (b) French assignats in 1797.
    (c) Argentina paper pesos in 1899.

(d) United States greenbacks in 1879.
(e) English paper pound in 1821.

20. What two variables must be considered in comparing domestic and foreign security quotations?

21. Brazilian 4's of 1889 are quoted "45 London". What would be the equivalent New York price with sterling at \$3.50? At \$4.00? At \$4.50? At par?

22. Danish 3's of 1945 are quoted "85½ Paris". What would be the equivalent New York price with the French franc at 8c? At 9c? At 10c? At par?

23. What provision appears in the City of Eberfeld (Germany) 5 per cent Municipals of 1932 regarding a possible change in the German monetary system prior to maturity?

24. Why is it particularly advisable in foreign investing that the purchaser be assured that the purpose for which the loan is being made is productive, and that the proceeds of the loan be used exclusively for that purpose?

25. In 1919 the State of Santa Catharina, Brazil, sold to a New York investment house \$5,000,000 in 6 per cent external bonds. After the bonds had been sold, but before the proceeds were delivered in full to the State, the investment house failed. The State thereupon defaulted in the interest payment under the claim that the proceeds were never received. What was the position of the holders of the bonds?

Chapter XV

FIDUCIARY INVESTMENTS

1. (a) Name the three principal classes of fiduciary investors.
   (b) To what extent are fiduciaries permitted to exercise their own judgment in making investments?
   (c) What are "legal investments" for fiduciaries?
2. (a) In the absence of documentary instructions, how may a trustee in New York State invest trust funds?
   (b) What is the general American principle for trustee investments?
   (c) Distinguish between "corpus" and "income"; between "life tenant" and "remainderman."
3. (a) Do amortization and accumulation on bonds affect corpus and income?
   (b) A died in 1910 leaving $100,000 stock in corporation M in a trust fund. B was to receive the income during his lifetime, after which the principal was to go to C. The corporation paid regular dividends at the rate of 5 per cent per annum for several years thereafter, but in 1916 paid a 40 per cent cash dividend. How should the 1916 dividend be divided between B and C? The balance sheets of the corporation before the payment of dividends in 1910 and 1916 were as follows:

BALANCE SHEET, 1910

Assets	$4,500,000	Liabilities	$3,000,000
		Capital	1,000,000
		Surplus	500,000
	$4,500,000		$4,500,000

BALANCE SHEET, 1916

Assets	$5,750,000	Capital	$1,000,000
		Liabilities	4,000,000
		Surplus	750,000
	$5,750,000		$5,750,000

   (c) If the 1916 dividend had been a stock dividend instead of a cash dividend, would the answer be changed?
   (d) If no dividend had been paid in 1916, and B died January 1, 1917, to whom would the property go?
4. (a) What are the legal restrictions upon savings banks' investments in this State?
   (b) Compare same with New York State restrictions.
   (c) What forms of investment securities are not eligible for investment by New York State savings banks?
   (d) To what extent were the New York State restrictions modified as a result of the Government operation of the railroads?

(e) Why does the New York law in some cases permit the savings banks to invest in the bonds of certain cities and not in the bonds of the county in which the cities are located?

5. (a) What is the fundamental difference between commercial and investment banking?
   (b) On January 1, 1921, the National Bank of Commerce in New York had invested in short-term loans $363,000,000 and in long-term bonds $11,000,000. On January 1, 1922, the respective amounts were $267,000,000 and $41,000,000. Account for the change.
   (c) In what stocks are national banks permitted to invest?
   (d) Arrange with regard to investment desirability on the part of a commercial bank: security, income, marketability.
   (e) What are bank acceptances and to what class of investors do they appeal?
   (f) Why are commercial banks permitted to take greater risks in investment commitments than savings banks?

6. With reference to the latest report of the Superintendent of Insurance of New York:
   (a) Determine the relative amounts invested in the four classes as shown on page 226.
   (b) From what two sources and in what relative proportions are the revenues of insurance companies derived?
   (c) How does the total revenue compare with the total disbursements?
   (d) What effect have the conditions referred to in the two previous questions upon the investment policy of an insurance company?

7. What are the legal restrictions upon the investments of life insurance companies in this State?

8. What are the requirements for the deposit of securities to protect the business done by insurance companies in this State?

9. What are the relative percentages of the funds of life insurance companies invested in each of the following classes?
   (a) Loans to policyholders.
   (b) Public bonds.
   (c) Railroad bonds.
   (d) Real estate mortgages.

10. Referring to Section 239 of the Banking Law of New York, determine if the following securities are eligible for investment by savings banks in that State:
   (a) Under sub-division 1:
      Panama 2's of 1936.
      First Liberty 3½'s of 1947.
   (b) Under sub-division 2:
      New York State Highway 4's of 1958.
      New York State Palisade Park 4's of 1967.

(c) Under sub-division 3:
State of Virginia Century 3's of 1991.
State of Massachusetts Statehouse 4's of 1933.

(d) Under sub-division 4:
City of Watervliet (N. Y.) City Hall 4½'s of 1935.
City of Troy (N. Y.) Park 4's of 1927.

(e) Under sub-division 5a:
City of Boston (Mass.) Water 4's of 1940.
City of Hoboken (N. J.) Sewer 6's of 1926.
County of Hudson (N. J.) Bridge 4's of 1939.

(f) Under sub-division 5b:
Atlanta, Ga., bonds.
Baltimore, Md., bonds.
Chicago, Ill., bonds.
Denver, Col., bonds.
Detroit, Mich., bonds.
El Paso, Tex., bonds.
Memphis, Tenn., bonds.
Oakland, Cal., bonds.
Portland, Ore., bonds.
Seattle, Wash., bonds.
Spokane, Wash., bonds.
Toledo, O., bonds.

(g) Under sub-division 7:
Chicago, Milwaukee and St. Paul Debenture 4's of 1934.
Manhattan Railway Consolidated 4's of 1990.
New York and Erie First Extended 4's of 1947.

11. A trustee holds stock as an investment authorized by the trust instrument. May he subscribe to additional shares upon an increase of capital if the stock is not a legal investment for trust funds?

Chapter XVI
THE SMALL INVESTOR

1. (a) What are "baby bonds"?
   (b) What advantages and disadvantages are involved to the investor and to the investment house in the marketing of baby bonds?

2. (a) An investor desires to purchase a single share of United States Steel common stock. Is such a purchase possible?
   (b) What proportion of the total trading on the New York Stock Exchange represents odd-lot transactions?
   (c) What disadvantage arises in odd-lot trading?

3. (a) Explain the partial payment plan as applied to the purchase of investment securities.
   (b) Differentiate between partial payment buying and margin transactions.
   (c) Why are many houses unwilling to handle partial payment accounts?
   (d) In what two ways do houses offset the higher cost of carrying partial payment accounts?
   (e) A purchases 10 shares of American Woolen common stock through the investment house of B. & C., on the partial payment plan. After A has paid three-fourths of the purchase price, B. & C. fail. What is A's position as a creditor of the house of B. & C.?
   (f) Assume in (e) that B. & C. had pledged the stock as collateral for a bank loan.

4. (a) Explain the issuance and redemption of Treasury savings certificates.
   (b) A purchased a $1,000 certificate on October 13, 1920. What was the cost? When will the face value be $1,000? What would have been the redemption value on March 3, 1922?
   (c) What was the volume of Treasury saving certificates and war savings stamps issued and redeemed each year since 1918?
   (d) What is the present volume outstanding?

5. With reference to postal savings banks:
   (a) What interest rate is paid on deposits?
   (b) What limitation is placed upon deposits?
   (c) Under what conditions are postal savings bank bonds issued?
   (d) What is the volume of (1) postal savings deposits and (2) postal savings bank bonds outstanding?

6. (a) Distinguish between mutual and stock savings banks.
   (b) Under what conditions should an individual with limited savings place his funds in savings banks?
   (c) Why is the maximum savings bank deposit account limited?

(d) What effect have State restrictions upon the investment of savings bank deposits with regard to (1) safety and (2) income?

7. (a) What is the general plan under which building and loan associations operate?
   (b) What advantages and disadvantages are involved?

8. (a) May life insurance be properly termed an investment by a policyholder?
   (b) What six features should every good life insurance policy contain?
   (c) What is meant by a "mutual" life insurance company?

Chapter XVII

WORK OF THE BOND HOUSES

1. (a) What are the three classes of bond houses?
   (b) Name at least two prominent investment houses in each class.
   (c) Why do investment houses specialize in certain issues?
2. (a) What are the five major functions of a bond house?
   (b) Does each of these functions necessarily require a separate department?
3. (a) In what way can a house be of service in an advisory capacity to the corporation whose securities it markets?
   (b) To the investor who buys through the house?
4. (a) What advantages and disadvantages arise from the banking function of an investment house?
   (b) Is the present tendency for the houses to expand their banking facilities?
5. (a) Outline the various methods employed by an investment house in marketing securities.
   (b) What is the value of a mailing list?
   (c) From what published sources may information be derived as to prospective purchasers of securities?
   (d) Where is the best market for the sale of each of the following?
      (1) U. S. Panama 3's of 1938.
      (2) U. S. Liberty 3½'s of 1947.
      (3) U. S. Liberty 4¼'s of 1938.
      (4) U. S. Treasury notes.
      (5) Federal Farm Loan bonds.
      (6) State of Iowa bonds.
      (7) City of Topeka (Kan.) bonds.
      (8) Pennsylvania Railroad bonds.
      (9) Pennsylvania Railroad Equipment notes.
      (10) Pennsylvania Railroad stock.
      (11) Montana Power bonds.
      (12) Laclede Gas stock.
      (13) U. S. Steel bonds.
      (14) Anaconda Copper stock.
      (15) Chase National Bank (N. Y.) stock.
6. Prepare an advertisement for a daily newspaper to be 2 columns wide and 4 inches deep, offering 4 per cent municipal bonds of the city in which you reside.
7. Prepare a single page circular offering preferred stock in any industrial company concerning which you have access to adequate information.
8. (a) In what manner does a house create an "artificial market" for its securities and how does this operate to benefit the investor?
   (b) In what other ways does a house protect the investor?

9. (a) What is security underwriting?
   (b) May a security issue be underwritten without the aid of a syndicate?
   (c) What are the duties of the syndicate manager?
   (d) In what ways do the syndicate members profit?
   (e) What are the advantages of underwriting to the corporation and to the investor?
   (f) How many members comprised the Anglo-French Loan syndicate in 1915?
   (g) Why are insurance companies usually prohibited from joining syndicates?
   (h) What was the syndicate price and the offering price of the Anglo-French syndicate in 1915?
   (i) What was the gross selling profit in the sale of the Interborough Rapid Transit First and Refunding 5's in 1913?
   (j) Account for the failure of the American Can syndicate in 1913; the United States Rubber syndicate in 1916; the American Woolen syndicate in 1920.
10. What is the customary plan of allotment when the subscriptions to a new bond issue exceed the amount offered?
11. On March 3, 1921, Beaver Board 8's closed at 99. During the following day bids were as low as 25, although the internal affairs of the company remained unchanged. Account for the decline.
12. Why do bond houses prefer to sell on a "when issued" basis rather than on a "firm" basis when offering new issues?
13. (a) Of the two classes of private enterprise which seek the assistance of an investment house, which offers the better opportunity?
    (b) What five factors must a house consider in determining the status of a going concern?
14. Why are investment houses unwilling to submit "firm" bids subject to acceptance on corporate offerings?
15. (a) Why must a security offering be a complete success or a failure?
    (b) Why does the price frequently decline immediately following a security offering?
16. Why do not investment houses compete to a greater extent in seeking corporate security offerings?
17. (a) What is the "block" method of selling securities?
    (b) What is the disadvantage to the purchaser?
    (c) What is a stock bonus?
18. In what respect does the market for securities in January and July differ from that during the other months?
19. What are the four preliminary steps taken by a bond house in connection with the purchase of securities?
20. In selling refunding bonds, what attempt is made to get holders of the first lien to convert?

21. Outline the activities of the Investment Bankers' Association of America.
22. Appended is an analysis of the new security issues in the United States for the years 1919, 1920, and 1921.
    (a) Account for the increase in 1921 over 1920.
    (b) Why did foreign government securities react in 1921 after the decline in 1920?
    (c) Why did the nature of the corporate securities change so profoundly during the three years?

TABLE A—According to purpose of issue
(In millions of dollars)

Year	New capital	Refunding	Total
1921	$3,574	$656	$4,231
1920	3,634	375	4,010
1919	3,552	808	4,361

TABLE B—According to class of borrowers
(In millions of dollars)

Year	Corporate	Foreign government	Municipal
1921	$2,419	$385	$1,203
1920	2,966	291	683
1919	2,739	514	691

TABLE C—According to nature of corporate offerings
(In millions of dollars)

Year	Bonds Long term	Bonds Short term	Stock
1921	$1,915	$226	$278
1920	1,234	660	1,071
1919	633	540	1,565

Chapter XVIII

LISTING ON THE EXCHANGES

1. (a) What is a stock exchange?
   (b) Do members trade for their own account?
   (c) Do members profit in the same manner as investment bankers?
2. (a) What are the chief requirements for listing on the New York Stock Exchange?
   (b) Do these same requirements hold good for all other stock exchanges?
   (c) Why was Stutz Motor stock "stricken from the list" in 1920?
   (d) Why are the securities of New Jersey Zinc Co. not listed?
3. (a) What are the advantages to the investor of holding a listed security?
   (b) How many securities are listed on the New York Stock Exchange?
   (c) How many are traded in on the most active days?
   (d) Is it equally desirable that stocks and bonds be listed?
   (e) What was the widest spread between bid and asked prices on inactive securities for any recent day?
4. Compile a list of the ten most active stocks on the New York Stock Exchange for each of the past five years.
5. Contrast the listing requirements of the New York Stock Exchange with the purchasing requirements of a reputable investment house.
6. What is short selling and to what extent does the practice affect the investment market?
7. To what extent are investment bonds traded in on the New York Stock Exchange?
8. (a) Is the purpose of the exchanges to create a market?
   (b) Why is a list of stockholders required by the exchange?
9. (a) What was the manner of quoting bonds on the New York Stock Exchange before Jan. 1, 1909? After that date?
   (b) What was the manner of quoting stock on the New York Stock Exchange before Oct. 13, 1915? After that date?
10. (a) What is the significance of a rapid and unexplained change in the market price of certain securities?
    (b) Why should the statements of officials at such times be discounted?
11. Why is the investor who buys only listed bonds following an unsatisfactory policy?

Chapter XIX

MECHANICS OF PURCHASE AND SALE

1. How may ownership of each of the following forms of securities be transferred?
   (a) Coupon bond.
   (b) Registered bond.
   (c) Stock certificate.
   (d) Stock subscription right.
   (e) Stock purchase warrant.
   (f) Dividend scrip.

2. What are the functions of the registrar and transfer agent in the transfer of corporate securities?

3. Explain each of the following purchase and sale instructions:
   (a) At the market.
   (b) At 97.
   (c) On the happening of an event.
   (d) At 89 until dividend time.
   (e) Day order.
   (f) G. T. C.
   (g) Specified time.
   (h) Discretionary order.
   (i) Stop loss order.

4. (a) On May 12, an Atchison, Topeka and Santa Fe General 4 per cent bond due in 1995, interest A. and O., is quoted at 89⅞. What is the total cost, inclusive and exclusive of commission charge?
   (b) On May 12, Atchison, Topeka and Santa Fe common stock, dividend payable March 1 quarterly at the rate of 6 per cent per annum, is quoted at 84. What is the total cost, inclusive and exclusive of commission charge?

5. What is the current commission charge on the purchase of the following securities on the New York Stock Exchange?
   (a) $1000 bond N. Y. Central Deb. 6 per cent at 99.
   (b) $1000 bond U. S. Liberty 4¼ per cent at 98.
   (c) 100 shares I. R. T. Pref. Stock at 7½.
   (d) 100 shares N. Y. Central Common at 87.
   (e) 100 shares Gen. Electric Common at 152.
   (f) 10 shares I. R. T. Pref. stock at 7½.

6. Why are most bonds sold net, i. e., without commission charge?

7. (a) R purchases 100 shares of Pennsylvania common in 1920. He endorses the certificate under duress. B secures it and sells it to C, who is not aware of the past history. Has C good title? What right has A?
   (b) What are the three implied warrants in every transfer for value?

8. M was the owner of a coupon bond which was lost. Later the bond is discovered in the possession of N, who is an innocent purchaser for value. May M recover from N?
9. (a) What are the five requisite elements or negotiability?
   (b) Is a certificate of stock a negotiable instrument?
   (c) A stock certificate for John H. Smith is erroneously made out to John M. Smith. Does it become deliverable if Mr. Smith endorses first as on the face of the certificate and directly beneath his proper signature?
10. What is the full meaning of the following order to a broker: "Buy for my account and risk 200 D. & H. at 112."
11. What are the three obligations of a broker?
12. The holder of a coupon bond writes his name across the bond, signifying that he is the owner thereof. Will this bond later constitute "good delivery" on the New York Stock Exchange?
13. (a) What four requirements must be observed in stock transfers in New York State?
    (b) What additional requirements are in force if stock is in name of decedent? Of trustee? Of corporation?
14. Is a corporation liable for the transfer of stock if the endorsement is forged?

Chapter XX

MATHEMATICS OF INVESTMENT

1. Explain the following terms:
   (a) Nominal yield.
   (b) Effective yield.
   (c) Net yield.
   (d) Amortization.
   (e) Accumulation.
   (f) Compound interest.
   (g) Compound discount.
   (h) Present worth.
   (i) Premium.
   (j) Discount.
   (k) Interpolation.
   (l) Accrued interest.
   (m) Accrued dividend.
   (n) Conversion parity.
2. Compute the yield on the following stocks:

Companies	Par	Dividend rate	Market price 3-20-1922
American Tel. & Tel......	$100	9%	122¼
Northern Pacific	100	7%	78⅛
Pennsylvania	50	4%	37½
Public Service of N. J.....	100	4%	86¾
Allied Chem. & Dye........	no	$4	63¼

3. What is the effect of extra dividends and stock dividends upon stock yields?
4. During the early part of 1922 General Electric was paying regular dividends at the rate of 8 per cent in cash and 4 per cent in stock annually. On March 20, 1922, the stock was quoted at 156. What was the yield?
5. (a) Explain the difference in computing the yield on bonds and the yield on stocks.
   (b) Does this difference obtain in the case of the Perpetual 6's of the Public Service Corporation of N. J.? In the case of Commercial Cable 4's due in 2397?
6. (a) The Goodyear Tire and Rubber First 8's of 1941 are redeemable at a premium of 20 per cent. Does this affect the yield?
   (b) The bonds are also subject to redemption by lot drawing previous to maturity. Does this affect the yield?
   (c) The Baltimore and Ohio Convertible 4½'s of 1933 were quoted at 80½ on April 1, 1922. These bonds are redeemable at 102½ at the option of the company after March 1, 1923. What was the yield on April 1, 1922?

(d) The Diamond Match Debenture 7½'s of 1935 were quoted at 107½ on April 1, 1922. These bonds are redeemable at 105 at the option of the company after Nov. 1, 1923. What was the yield on April 1, 1923?

7. With reference to the specimen page from the Rollins bond table book which appears on page 280:
   (a) Compute the yield as of March 20, 1922, on the Bethlehem Steel Refunding 5's of 1942, current price 92.
   (b) Compute the market price as of March 20, 1922, of the Pacific Gas and Electric 5's of 1942, current yield at 6 per cent.

8. Use the specimen page from the Sprague bond table book which appears on page 282 and compute as of March 20, 1922, the yield on a Federal Farm Loan 5 per cent bond, due in 1942, current price 102½.

9. Use the formulae which appear on pages 285 and 286 and determine:
   (a) The value of $1000 at compound interest for ten years at 6 per cent, interest compounded semi-annually.
   (b) The present worth of $1000 payable in 10 years, compound-discounted semi-annually at 6 per cent.

10. A prominent investment house recently headed an advertisement: "Which has the greater value, the principal or the coupon?" Determine mathematically how much the purchaser of a Kansas City Terminal 4 per cent bond due in 1960 pays for the right to receive respectively the coupon payments during the life of the bond and the principal at maturity upon the assumption that the price was 80½ on March 20, 1922.

11. Assume that the holder of a Louisville and Nashville 5½ per cent Series A coupon bond due in 2003 detaches the interest coupons for the ensuing 15 years (face value $825) and leaves intact the bond itself (face value $1000), and the coupons for the remaining 66 years (face value $3,630). Which would have the greater present value, the interest for the first 15 years, or the principal plus the interest for the remaining 66 years?

12. (a) What determines whether stock will sell at a premium or a discount?
    (b) What determines whether a bond will sell at a premium or a discount?

13. Explain why the holders of International Mercantile Marine Preferred did not receive adequate compensation for the loss of dividends between 1904 and 1916 when payments on account of the accumulated arrearage were made after the latter date.

14. An investor purchases $10,000 in Utah Power and Light First 5's due in 1944 on May 1. As the interest payment dates are F-A (February 1 and August 1), how is the accrued interest on the bond adjusted? Is there any loss to the investor?

15. With reference to the New York Central Convertible Debenture 6's described on page 301:

(a) What is the conversion parity of the bonds based on the current price of the stock?
(b) What is the conversion parity of the stock based on the current price of the bonds?

16. What will be the difference in price between a 5 per cent 20-year bond selling to yield 5.25 per cent and the same bond selling to yield 5.50 per cent?
17. The Northern Pacific General Lien 3's are due in 2047. What is the justification in considering accumulation in determining the yield in view of the distant maturity date?
18. American Telephone and Telegraph 7-year 6's of 1925 are convertible into stock at par and $6 in cash for each share received.
    (a) What effect has this conversion privilege upon the market price of the bonds?
    (b) How is the matter of accrued interest on the bonds and accrued dividends on the stock adjusted?
19. The Bethlehem Steel 7 per cent notes, Series E, due July 15, 1923, were convertible on April 1, 1922, into Consolidated 6's, Series A, due 1948 "at par at a price equivalent to a 6½ per cent income basis." How was the conversion handled?
20. Complete the following table:

(1) Convertible bond	(2) Current price	(3) Convertible into	(4) Conversion ratio	(5) Current price of conversion option security	(6) Prospective opportunity
Baltimore & Ohio Conv. 4½'s of 1933	......	......	......	......	......
Chesapeake & Ohio Conv. 5's of 1946	......	......	......	......	......
Chicago, Milwaukee & St. Paul Conv. 5's of 2014	......	......	......	......	......
New Haven Conv. 6's of 1948	......	......	......	......	......
Norfolk & Western Conv. 6's of 1926	......	......	......	......	......

Chapter XXI

GENERAL INVESTMENT PRINCIPLES

1. (a) What is meant by diversification of risk?
   (b) Why is diversification advisable in investing?
2. (a) Under what two general heads may investments be diversified?
   (b) What are the subdivisions under each head?
3. What is the maximum percentage of the total of a fund which may conservatively be invested in:
   (a) A single enterprise.
   (b) A single class of enterprise.
   (c) A single geographical section.
4. Divide all investments into five classes according to maturity and indicate a maximum percentage for each class.
5. Apply your answer to the preceding question to the year 1900 and comment upon the reinvestment opportunities that would have arisen at the maturity dates up to the present time.
6. Give illustrations to evidence the advisability of distributing funds as suggested in Problem No. 3 preceding.
7. What are Law's seven general principles of distribution?
8. Complete on a percentage basis the distribution of an investment fund in the appended table:

Class of security	*Range of yield*	*Percentage of total fund* Class A	Class B	Class C
Gilt edge ..	up to ....%	......	......	......
High grade.	....% to ....%	......	......	......
Good	....% to ....%	......	......	......
Fair	....% to ....%	......	......	......
Speculative.	over ....%	......	......	......

   Class A comprises investors entirely dependent upon investment income.
   Class B comprises those partially dependent.
   Class C comprises those entirely independent.
9. Diversify an investment fund of $25,000 with regard to the class of enterprise, maturities, and geographical division as is illustrated on page 310.
10. Analyze the answer to problem No. 9 in comparison with the yield distribution suggested in problem No. 8.
11. Analyze the investment holdings of any of the large insurance companies operating in New York State in the manner illustrated on page 313 in the analysis of the bonds held by the Rockefeller Foundation. (List of holdings may be secured from the annual report of the Superintendent of Insurance.) Give particular attention to:
    (a) Amount in any one enterprise.
    (b) Amount in any one class.
    (c) Amounts according to maturity dates.

(d) Average holdings per enterprise.
(e) Average yield on entire list.

12. The man who is reported to be the wealthiest in the United States is accredited with having once said: "I might have converted my interests into gold at one time and have taken my money to England." Could he have done so?

13. An investor holds the following securities. He desires to raise immediately $10,000. Which should he sell? Under what conditions would it be wiser to arrange a collateral loan?

100 Delaware and Hudson Common.
25 United States Steel Preferred.
50 Pacific Gas and Electric Common.
30 American International Common.
$2000 Frisco Prior Lien 6's of 1928.
$1000 Northern Pacific Prior 4's of 1997.
$3000 Goodyear Tire and Rubber 8's of 1941.
$5000 Kingdom of Italy 6½'s of 1925.

Chapter XXII

RELATION OF ECONOMIC CONDITIONS

1. (a) What is the business cycle?
   (b) What are the four principal phases of the business cycle?
   (c) Distinguish between a panic, a crisis, and a depression.
   (d) In what years occurred the panics in United States financial history?
   (e) Why are business conditions said always to be in the process of cumulative change?
2. What are the characteristics of the four stages of the business cycle?
3. (a) What are the "barometers of business"?
   (b) Arrange in the order of barometric utility:
      (1) Pig-iron production.
      (2) Price index numbers.
      (3) Wheat crop.
      (4) Interest rates.
      (5) Bank clearings.
      (6) Cotton crop.
      (7) Bank statements.
4. Why is agricultural production regarded as the "fountain-head" of business activity in the United States?
5. What is the relationship between the financial condition of the commercial banks of the country and the trend of business conditions?
6. What is the significance of changes in each of the following economic factors, with particular regard to the investment market?
   (a) Railroad net earnings.
   (b) Commodity exchange quotations.
   (c) Pig-iron production.
   (d) Bituminous coal production.
   (e) Stock exchange quotations.
   (f) Business failures.
   (g) General commodity prices.
   (h) Interest rates.
   (i) Exports and imports.
   (j) International gold shipments.
   (k) Building operations.
   (l) Federal finance.
   (m) Foreign exchange rates.
   (n) Bank clearings.
   (o) Car loadings.
   (p) Idle cars.
   (q) Wage rates.
   (r) Corporate earnings.
   (s) New security issues.

7. (a) What is the trend of security prices during the phases of the business cycle?
   (b) At what stages of the business cycle is it advisable to buy bonds? To sell bonds? To buy stocks? To sell stocks?

8. List the various barometers stated in problems Nos. 4, 5, and 6 immediately preceding, and opposite each indicate "favorable," "unfavorable," or "neutral" with regard to the prospect for improved business conditions during the next twelve months.

Chapter XXIII

RELATION TO TAXATION

PART I. FEDERAL TAXES.

1. (a) Distinguish between the normal tax and the surtax.
   (b) What are the present rates for the normal tax and the surtaxes?
   (c) What percentage of total taxable income must be paid by an individual with a taxable income of \$3,000; \$8,000; \$20,000; \$150,000; \$1,000,000?
2. A has a taxable income of \$25,000 which includes the interest on five Colorado Industrial First 5's, due in 1934, which yield 6.20 per cent before taxes. What is the yield after the payment of taxes?
3. Prepare a table as indicated below to show what yield before Federal taxes, must be received from taxable securities by investors with large incomes to equal in net income the return from tax-free securities.

Taxable income	3½%	4%	4¼%	4½%	4¾%	5%
\$3,000	....	....	....	....	....	....
\$10,000	....	....	....	....	....	....
\$25,000	....	....	....	....	....	....
\$50,000	....	....	....	....	....	....
\$100,000	....	....	....	....	....	....
\$300,000	....	....	....	....	....	....
\$1,000,000	....	....	....	....	....	....

4. (a) What securities are tax-free?
   (b) What securities are partially tax-free?
   (c) Upon what securities is part of the tax paid by the corporation?
   (d) What securities are exempt from the normal tax?
5. (a) What is meant by a "tax-free covenant" bond?
   (b) To what extent does the covenant hold good?
   (c) What is meant by "withholding"?
6. Determine the tax position of each of the following securities:
   (a) Delaware and Hudson common stock.
   (b) Morris and Essex guaranteed stock.
   (c) Canadian Pacific debenture stock.
   (d) Royal Dutch shares.
   (e) U. S. Liberty First 3½'s of 1947.
   (f) U. S. Liberty First 4¼'s of 1938.
   (g) U. S. Liberty First-Second Converted 4¼'s of 1947.
   (h) New York City Corporate stock 4's of 1959.
   (i) City of Columbus (O.) 4's of 1947.
   (j) State of Utah 4½'s of 1931.
   (k) County of Buncombe (N. C.) 5's of 1956.
   (l) Miami Conservancy District 5½'s of 1946.

(m) Central Pacific European 4's of 1946.
(n) Bush Terminal 5's of 1955.
(o) American Straw Board 7's of 1929.
(p) American Gas 6's of 2016.
(q) Manhattan Elevated Consolidated 4's of 1990.
(r) New York Central Refunding and Improvement Series A 4½'s of 2013.
(s) French Government External 8's of 1945.
(t) French Government Internal 5's of 1980.

7. To what extent are dividends paid other than in cash taxable?

PART II. STATE TAXES.

8. Outline the taxes imposed by this State upon the various classes of investment securities.

9. What are the tax rates imposed under the New York State Income Tax law?

10. A resident of New York with a taxable income of $45,000 holds a taxable 6% bond purchased at par. What is his net yield after Federal and State taxes?

11. Show how certain States tax intangible property and indicate the injustice of this practice.

PART III. TAXATION IN GENERAL.

12. A stockholder in a New York corporation, by reason of his stockholding, is directly and indirectly subject to what forms of taxation by the various governmental bodies?

13. (a) What is an inheritance tax? An estate tax?
(b) What are the current Federal and State rates of these taxes?
(c) How does the operation of an inheritance tax affect the investment field?

14. From the most recent Annual Report of the Secretary of the Treasury, analyze the current revenues and expenditures and state what is the prospect for tax reduction during the next ten years?

15. To what extent are American holders of foreign securities subject to double taxation thereon.

16. (a) Referring to the schedule of amortization on page 296, would the holder of the bond include as income in his tax return for the year 1922, the total interest of $60.00 received in cash, or the amortized net interest of $48.64?
(b) Referring to the schedule of accumulation on page 297, would the holder of the bond include as income in his tax return for the year 1922 the total interest of $40.00 received in cash, or the total income of $47.45 which represents actual interest plus accumulation?

17. (a) A municipal bond is purchased in 1919 directly from the issuing municipality at 96. At maturity will the appreciation of 4 points be regarded as taxable income?
    (b) If the bond in (a) were a corporate bond, would the answer be changed?
    (c) If the bond in (a) were originally purchased by X and was sold by X to Y before maturity at 94, would the loss be deductible for tax purposes? If at 98, would the gain be taxable income?
    (d) If Y in (c) sold the bond to Z at 97, or held to maturity, would the gain or loss be taxable income?

Chapter XXIV

SAFEGUARDING OF INVESTMENTS

1. Distinguish between internal and external safeguards.
2. What are the earmarks of a fraudulent prospectus?
3. How do public utility commissions in the various States protect the interests of investors?
4. (a) What are "blue sky" laws?
   (b) In what States are such laws now in effect?
   (c) What are the usual provisions of the laws?
   (d) What objections may reasonably be raised to these laws?
5. (a) What is a "bucket shop"?
   (b) What are the three ways in which the house may operate?
   (c) Account for the numerous failures of such houses early in 1922.
6. Why did the following clause appear in the circular offering the Louisville Gas and Electric 7 per cent notes in 1918:

   > Passed by the Capital Issues Committee of the Federal Reserve Board (opinion No. 50) as not incompatible with the interest of the United States, but without approval of the merits, security, or legality thereof in any respect.

7. Why did the Department of State early in 1922 request that investment houses submit foreign security offerings for approval before marketing the bonds?
8. What precautions should an investor take to protect the safekeeping of his securities?

Chapter XXV

PROTECTION OF INVESTMENTS

1. How may an investor watch the current status of his holdings?

2. On July 21, 1919, a holder of Bethlehem Steel Class B common stock was advised to transfer his holdings into the 8 per cent Preferred. Was the advice well founded?

3. What is the significance of changes in the following items in the financial statements of a corporation:
   (a) Gross revenues.
   (b) Operating ratio.
   (c) Maintenance charges.
   (d) Working capital.
   (e) Inventories.
   (f) Fixed charges.
   (g) Managing personnel.

4. Show how the financial difficulty in which the Westinghouse Company found itself in 1907 might have been foreseen from the financial reports of the company for the preceding six years.

5. (a) What are protective committees?
   (b) What are the legal powers of such committees?
   (c) Why does not one committee act for all classes of security holders?
   (d) Why do the stockholders' committees usually comprise the directors of the company; the bondholders' committees, the investment banking interests; and the creditors' committees, the commercial banking interests?
   (e) Why is a general reorganization committee sometimes appointed by the separate committees?
   (f) Must default occur before a protective committee may be appointed?
   (g) Must security holders join in the action?
   (h) Under what circumstances is it advisable for a security holder to deposit his securities?
   (i) How does a reorganization committee come into possession of the corporate property?
   (j) What is known as an "upset" price?
   (k) Why, in reorganization, is the name of a railroad changed simply to railway, or from company to corporation? Is this as true with industrial companies as with railroad companies?
   (l) How is a security holder treated who refuses to assent to the reorganization plan?

6. What is the order of priority of claims against the assets of a corporation in receivership?

7. What are the usual objects of a reorganization and how may the accomplishment of these objectives affect the security holder?
8. Under what conditions may a security holder reasonably object to any one, or a combination, of the following methods of readjusting the finances of a company unable to meet its obligations:
   (a) Paying an assessment.
   (b) Permit placing of prior lien.
   (c) Exchange for weaker securities.
9. What two questions should a security holder consider before deciding whether or not to stay through a reorganization?
10. (a) What is the conservative assessment limit for a stockholder to pay in a railroad receivership?
    (b) What alternative has the stockholder who does not desire to pay the assessment?
11. (a) In what ways may an investment house syndicate profit through underwriting reorganization securities?
    (b) How does this arrangement operate to help the success of the reorganization?
12. (a) What caused the Goodyear Tire and Rubber reorganization in 1921?
    (b) What was the plan of reorganization?
    (c) Was the reorganization successful?
13. From the appended reorganization plan of the Missouri, Kansas and Texas:
    (a) Why were certain securities, notably the equipment trusts, permitted to remain undisturbed?
    (b) Arrange the various bond issues in the sequence of their claims as indicated in the proposed plan.
    (c) Upon what securities were assessments levied and what securities were issued for cash payments?

EXISTING SECURITIES		Each $1,000 Principal Amount of Existing Securities to Receive						
Description	Amount	Prior Lien Mtge. Bonds Series A 5%	Prior Lien Mtge. Bonds Series B 4%	Prior Lien Mtge. Bonds Series C 6%	Adjustment Mtge. Bonds Series A 5%	Preferred Stock Series A	Common Stock (Number of Shares)	Cash
M., K. & T. Ry. Co:								
1st Mtg. 4s, June 1, 1990	$39,999,500	$500	$500	...	......	......	..	$23.33
2nd Mtg. 4s, June 1, 1990	20,000,000	...	...	...	$1,192.50	$64.16	..	......
1st & Ref. 4s, Sept. 1, 2004	9,992,000	500	250	...	503.33	......	..	......
Gen. Mtg. 4½s, Jan. 1, 1936	10,421,000	250	250	...	73.13	719.37	..	......
2-Yr. Sec. Gold Notes, May 1, 1916	18,974,000	350	...	...	525.00	525.00	..	......
1st Mtg. Ext. 5s, Nov. 1, 1944	3,253,000	...	...	...	500.00	666.67	1⅔	......
St. Louis Div. 1st Mtg. Ref. 4s, Apr. 1, 2001	1,924,000	...	...	...	250,00	750.00	2½	......
Kansas City & Pac. R. R.:								
1st Mtg. 4s, Aug., 1990	2,500,000	500	500	...	......	......	..	36.67
M., K. & Okla. R. R. Co.:								
1st Mtg. 5s, May 1, 1942	5,468,000	1,000	...	...	......	......	..	33.33
M., K. & Eastern Ry.:								
1st Mtg. 5s, Apr. 1, 1942	4,000,000	750	...	...	537.50	......	..	......
2nd Mtg. 5s, Apr. 1, 1942	58,000	...	...	...	500.00	656.25	1 3/16	......
M., K. & T. of Tex.:								
1st Mtg. 5s, Sept. 1, 1942	4,505,000	750	...	...	541.67	......	..	......
Dallas & Waco Ry.:								
1st Mtg. 5s, Nov. 1, 1940	1,340,000	1,000	...	...	......	......	..	33.33
Wich., F. & Northwestern:								
1st Mtg. 5s, Jan. 1, 1939	2,098,000	1,200	...	...	......	......	..	......
1st Lien Col. Tr. 5s, Jan. 1, 1925	838,000	500	...	...	675.00	......	..	......
1st & Ref. Mtg. 5s, 1940	3,000,000	250	...	...	812.50	187.50	..	......
Southwestern Coal & Im. Co.:								
1st Mtg. 6s, July 1, 1929	743,000	500	...	...	890.00	......	..	......
Boonv. R. R. Bridge Co.:								
1st Mtg. 4s, Nov. 1, 1951	883,000	...	1,000	...	......	......	..	26.67
M., K. & T. Ry. Co.:								
*Pref. Stk. (per 10 shs.)	13,000,000	...	...	140	60.00	......	10	......
†Com. Stk. (per 10 shs.)	63,283,257	...	...	175	75.00	......	10	......

*On payment of $20 a share. †On payment of $25 a share.

Note: The amounts of existing securities stated are the amounts outstanding in hands of public.

Chapter XXVI

READING THE FINANCIAL PAGE

1. What is meant by the following expressions:

   "Carrying the bag"
   "Watered stock"
   "Window dressing"
   "Tape reading"
   "Irish dividend"
   "Squeezing the shorts"
   "Close to the rails"
   "A bear raid"
   "A bull movement"
   "Cutting a melon"
   "The granger roads"
   "The Gould roads"
   "Passing the dividend"
   "Pegging the price"
   "Arbitraging"
   "Averaging"
   "Cats and dogs"
   "Covering the shorts"
   "Pyramiding"
   "Wash sales"
   "Matched orders"
   "Cornering the market"

2. What information may be gained from the following record of the transactions in U. S. Steel Common on March 20, 1922:

1922			Div.					Net	Closing	
High	Low	Sales	rate	First	High	Low	Last	change	Bid	Asked
96½	82	24,000	$5	95	95¾	94⅝	95½	–¼	95⅜	95½

3. What is the significance of the following abbreviations in connection with stock quotations: Ex.-div.; w. i.

4. A certain inactive security is quoted 360 bid, 700 asked. How would you interpret this quotation?

5. (a) What purpose is served by compiling stock and bond average prices?
   (b) From a practical standpoint what difficulties hinder the compilation of satisfactory averages?

6. (a) What is the unit of bond trading on the New York Stock Exchange?
   (b) How are quotations made?

7. What information may be derived from the following transcript of transactions in the security named, on Mar. 20, 1922:

Erie 1st Con. 4's

48	59
5	59½
20	59
8	59¼
6	59½
3	60

8. Explain the following abbreviations which appeared in connection with the bond quotations in the New York *Times* on March 20, 1922:

   int ctfs—temp 6s—col 4s—col tr 5s—conv 6s
   gen 4s—adj 4s—cv 4s—ref 4½s—deb 6s—gtd 5s
   con 5s—S F 5s—4s Ser A—pr ln 5s—inc 4s—equip 7s

9. A sale of Penn 6½'s is reported "s6f." What is the significance of the abbreviation?
10. Differentiate between transactions on the New York Stock Exchange, on the Consolidated Exchange, and on the Curb Market in New York.
11. Why are equipment notes quoted differently from other bonds?
12. Interpret the following commodity quotations as of March 20, 1922:

Iron	21.00
Wheat	1.46¾
Corn	.76¾
Coffee	.09⅜
Copper	12.87½
Cotton	18.40

13. What is the significance of the call money rate at New York?
14. (a) What is meant by par of foreign exchange?
    (b) What was the low point for the pound sterling since 1914?
    (c) Interpret the following quotations as of March 20, 1922:

London	4.37¼
Paris	8.97
Rome	5.07½
Amsterdam	37.85
Berlin	.38
Madrid	15.54

15. The daily statement of the condition of the United States Treasury Department as of March 17, 1922, showed an excess of ordinary receipts over ordinary disbursements amounting to $545,000,000 for the fiscal year 1922 to date. What was the significance of this condition?

Chapter XXVII

THE TOOLS OF INVESTMENT

1. Explain the nature of the investment information supplied by each of the following services:
   (a) Standard Statistics cards.
   (b) Moody analyses.
   (c) Poor and Moody manuals.
   (d) White and Kemble railroad mortgage maps.
   (e) Kember publications.
2. Outline the information afforded by the Commercial and Financial Chronicle.
3. What is the most convenient source of information on copper securities?
4. Information is sought as to the present value of a stock certificate issued in 1902. No place of business appears on the certificate, nor is the company known locally. Where might definite information be obtained?
5. What is the most reliable source of information concerning the financial condition of any company?
6. Enumerate the various ways in which the current quotation on a security may be obtained.
7. What information is available in the annual record of insurance company purchases?