

COMMENTS ON:

“THE VALUE OF RATINGS”

BY

CAROLA FRYDMAN, ASAF BERNSTEIN, & ERIC HILT

Ross Levine

What I learned

Moody's 1909 volume changed bond yields & liquidity.

The estimated effects are “modest.”

➤ The analyses are rigorous and convincing.

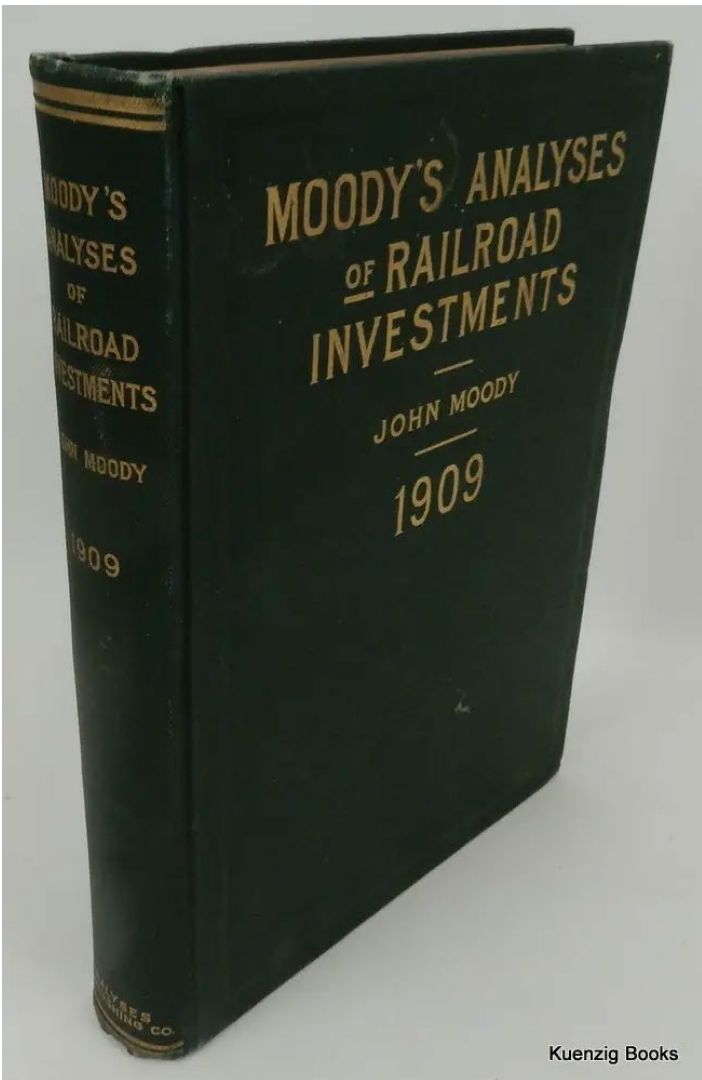
With my remaining 14 minutes ...

I will stress the dynamic, synergist evolution of financial and technological innovation, which

- Highlights additional contributions of the paper,
- Addresses the “modesty” of the estimates, and
- Speaks to the research’s applicability today.

What does this ...

... have to do with this?



Kuenzig Books

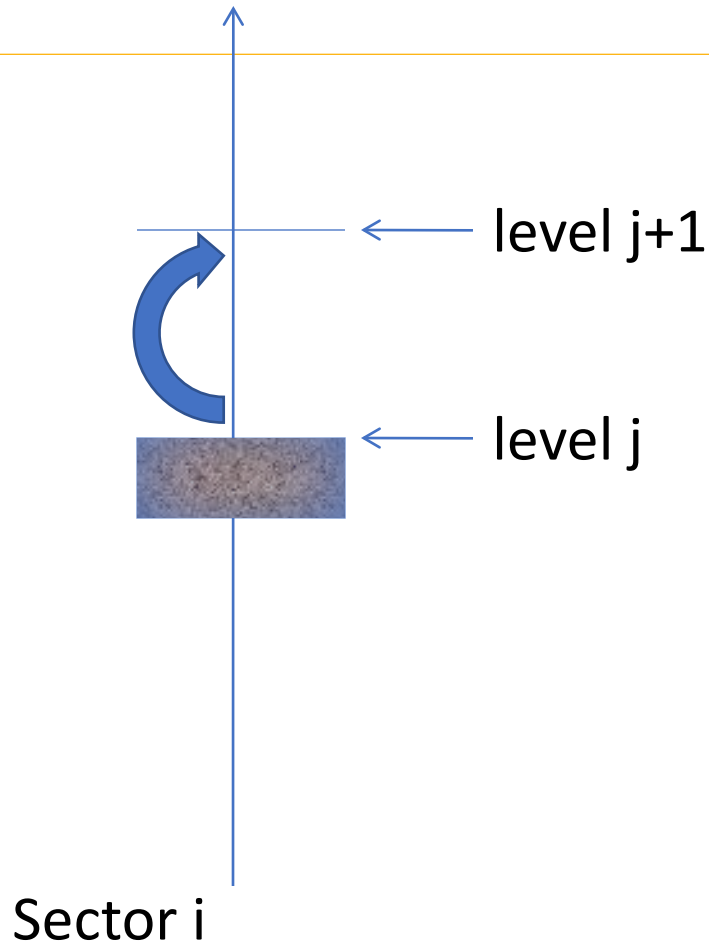


Technological innovation

(a central feature of long-run prosperity)

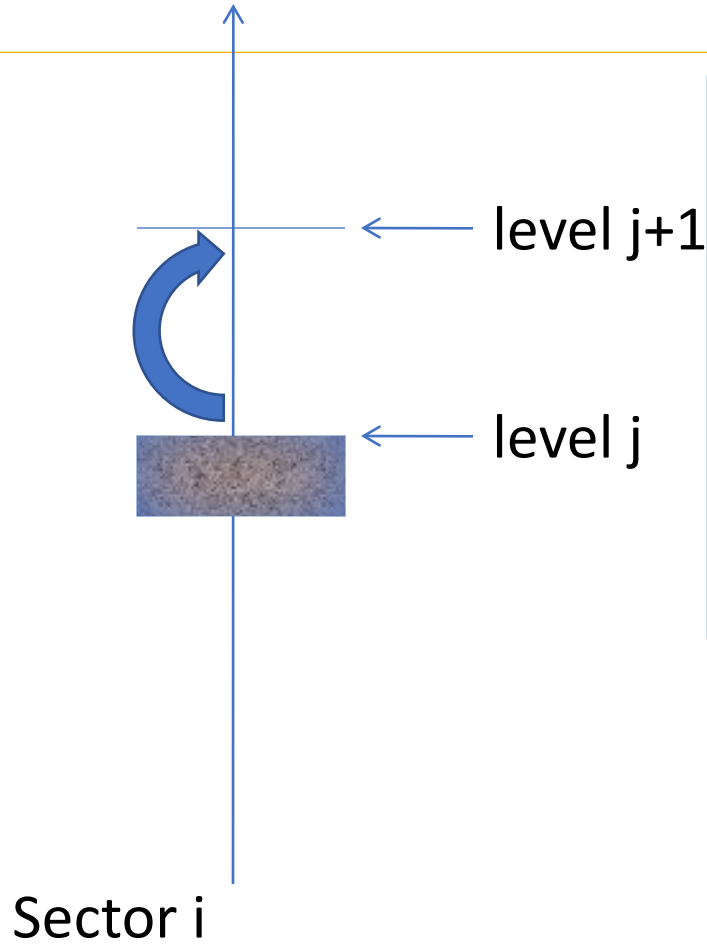
Textbook model

Technological innovation w/o finance



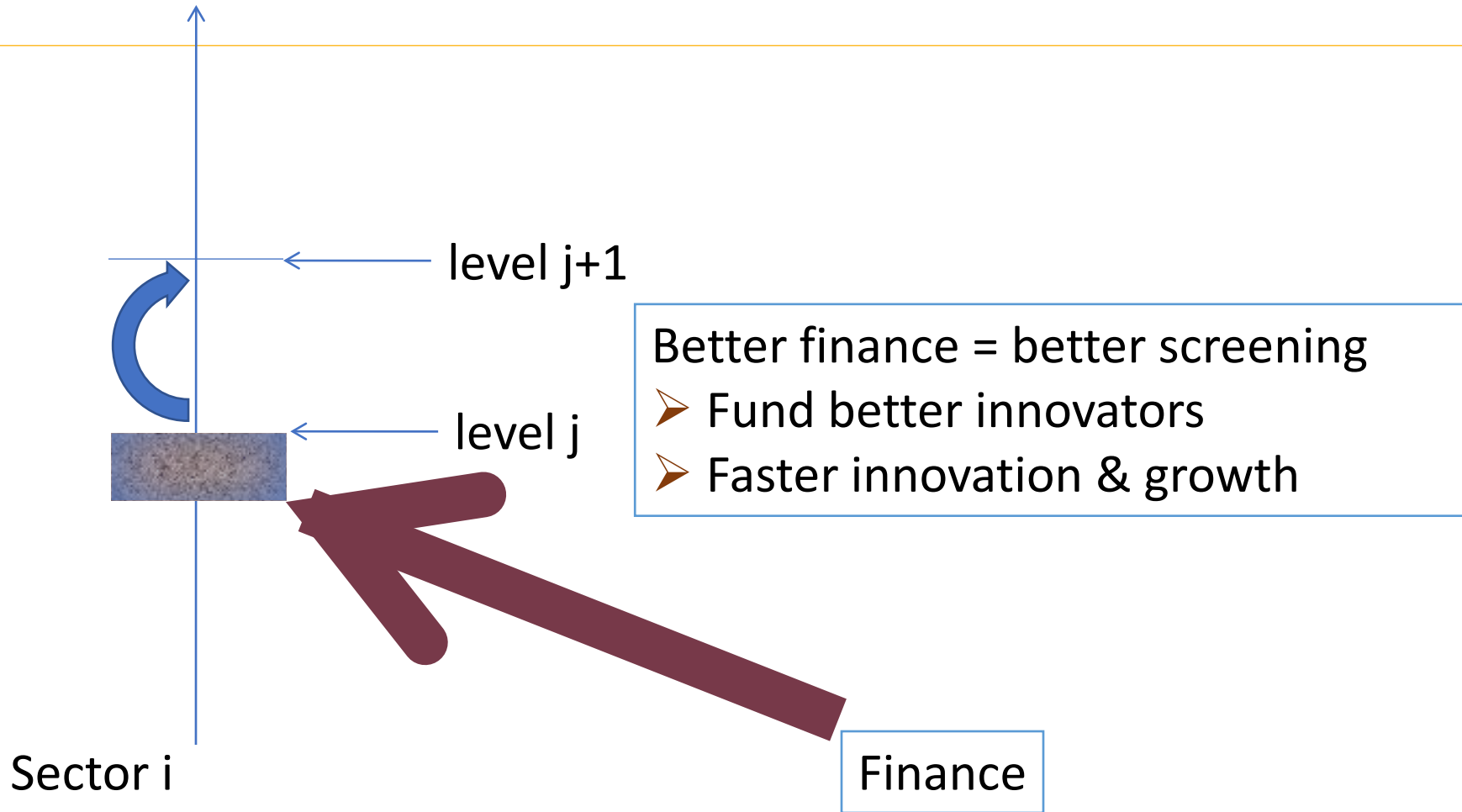
- It is costly to try to jump up the technology ladder.
- Success is uncertain.
- Innovators are heterogeneous.

Technological innovation w/o finance



- Profit-maximizing entrepreneurs seek monopoly rents by innovating
- Innovation rate affected by
 - Property rights
 - Competition
 - Who gets funding

Technological innovation w/ finance



But is this textbook story complete?

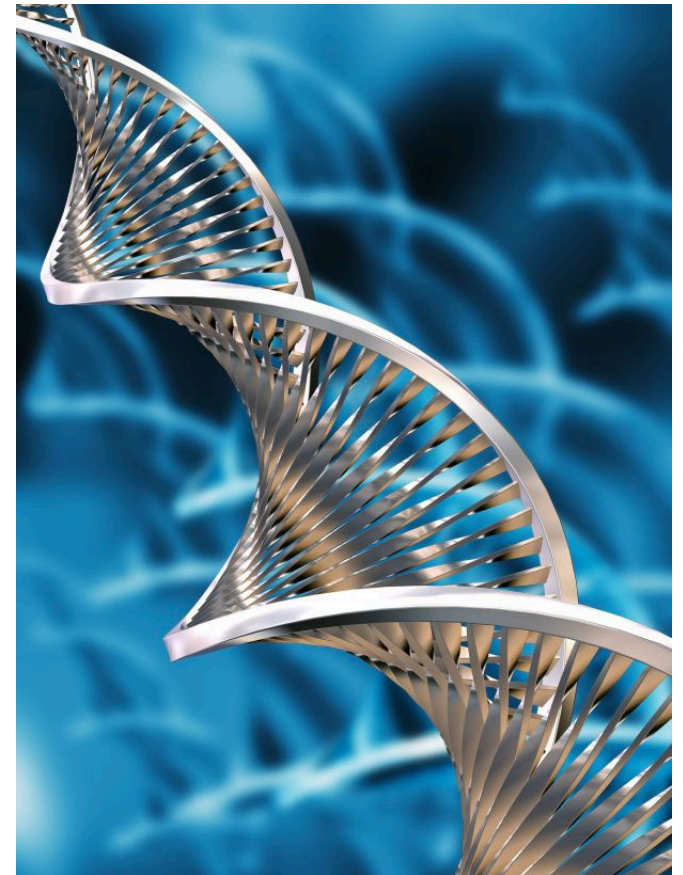
- Perhaps a given screening technology becomes less effective as technology progresses.

Recent example ...

From IT and venture capitalism to ...



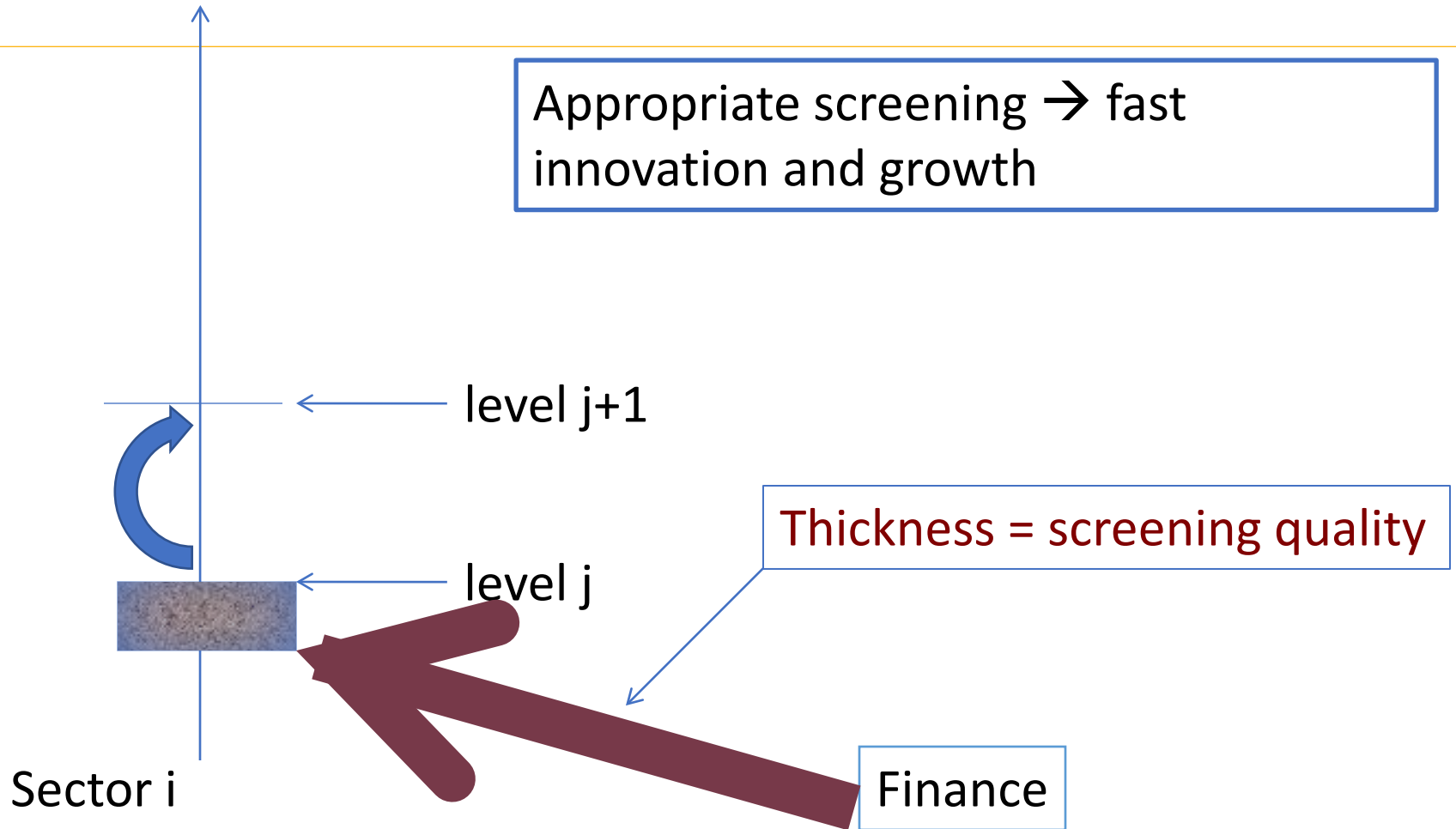
- ... to bio-technologies



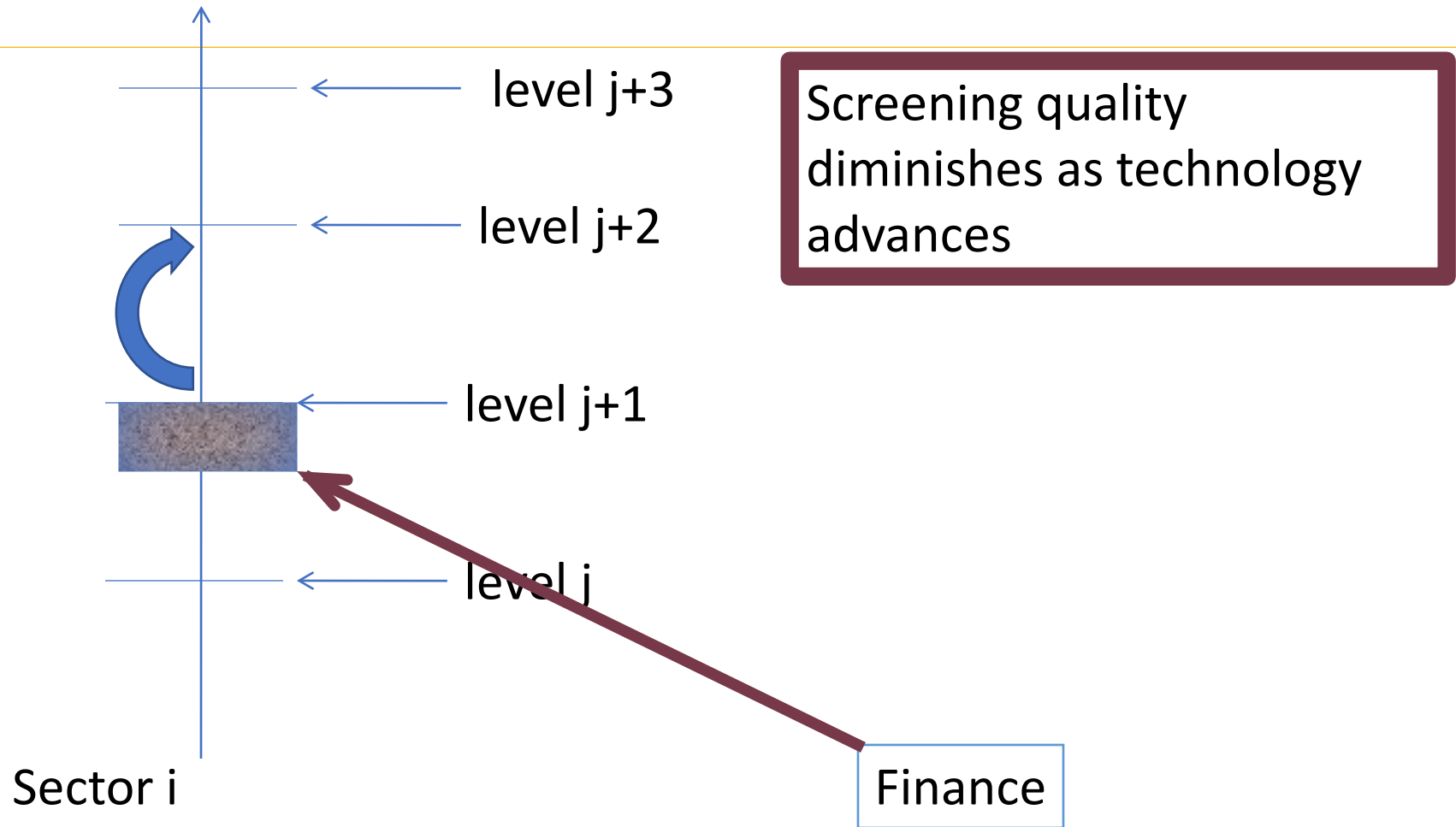
Technological & Financial innovation

Textbook model → dynamic, synergistic model

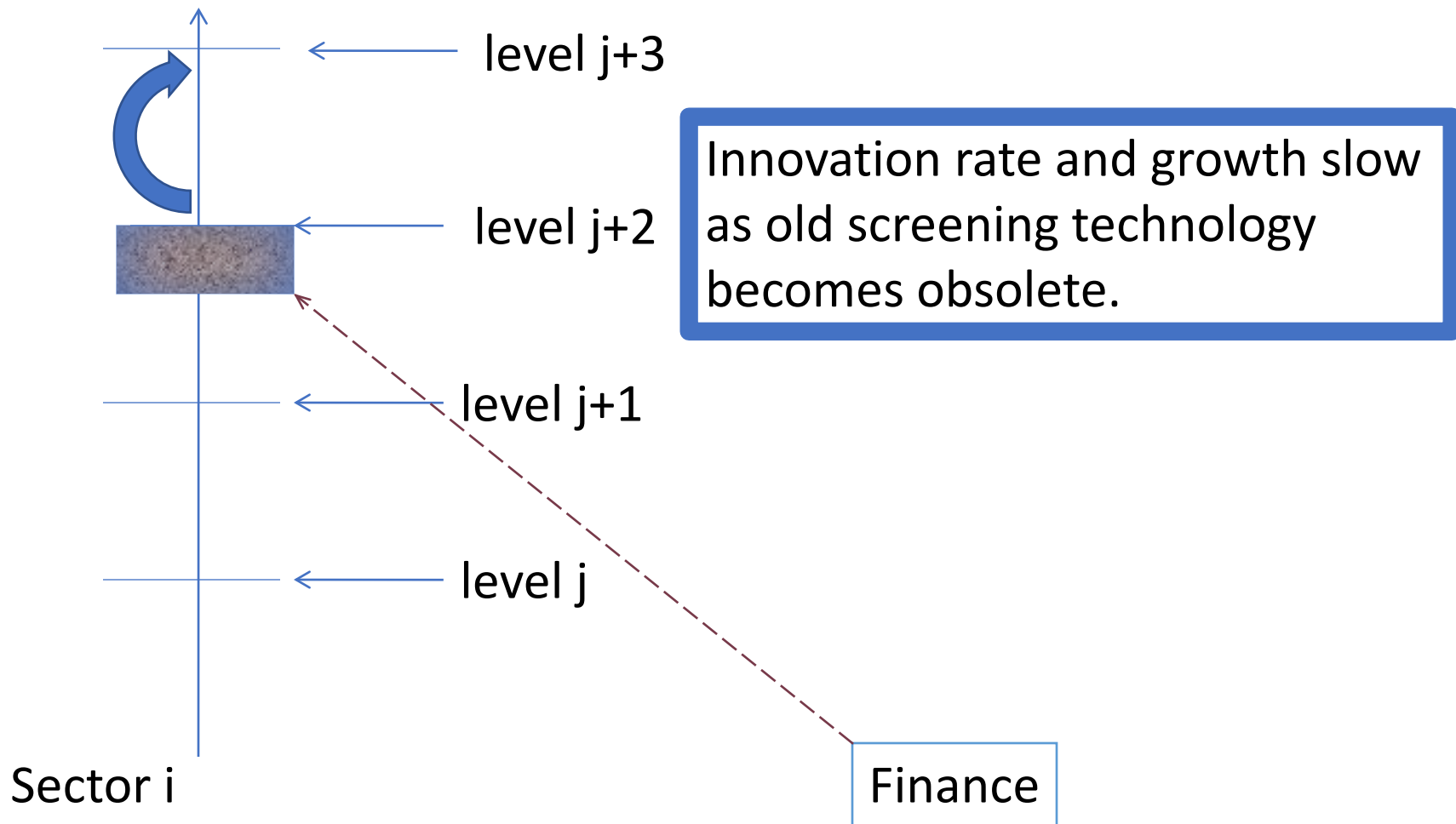
Dynamics



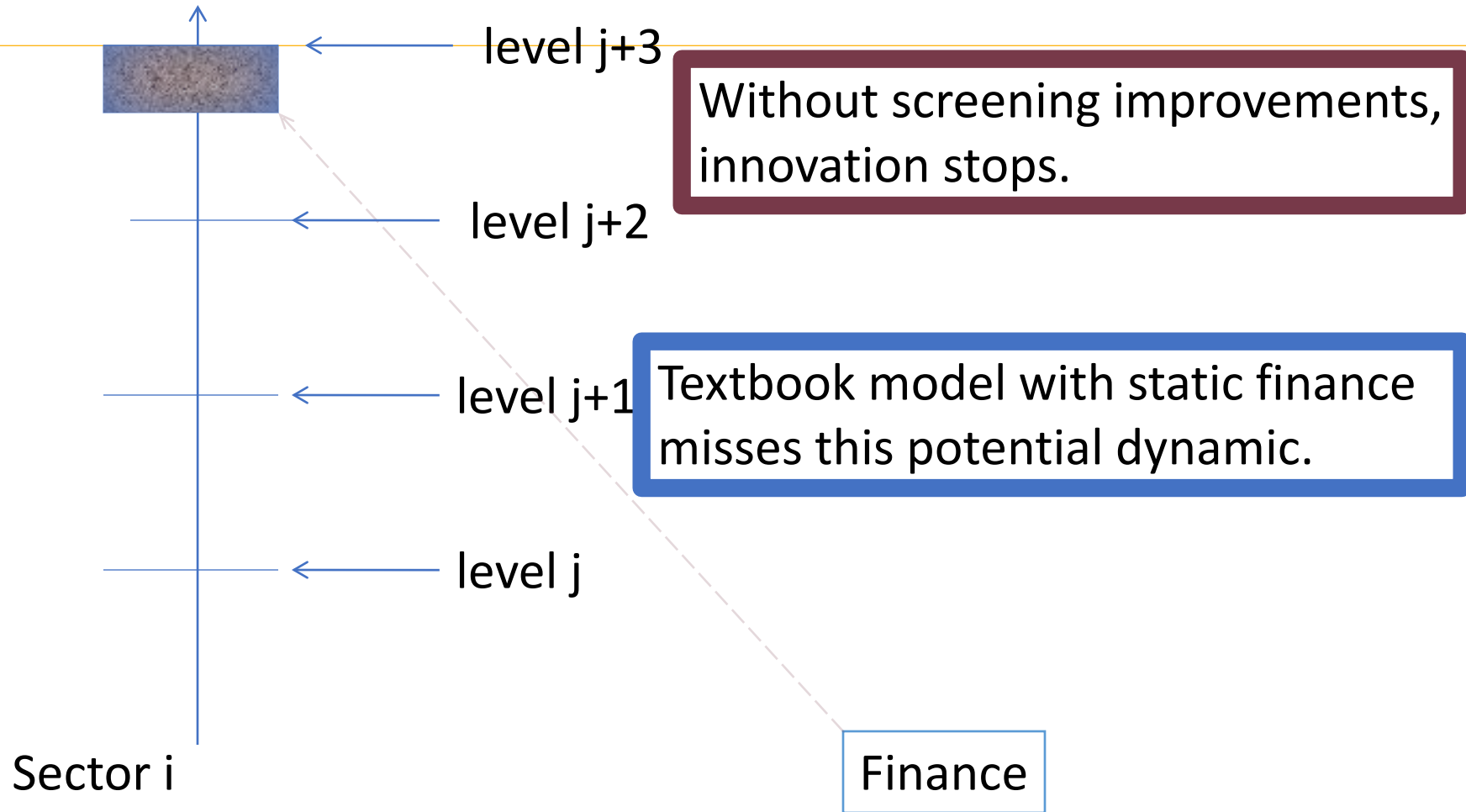
Schumpeterian growth with dynamic finance



Schumpeterian growth with dynamic finance



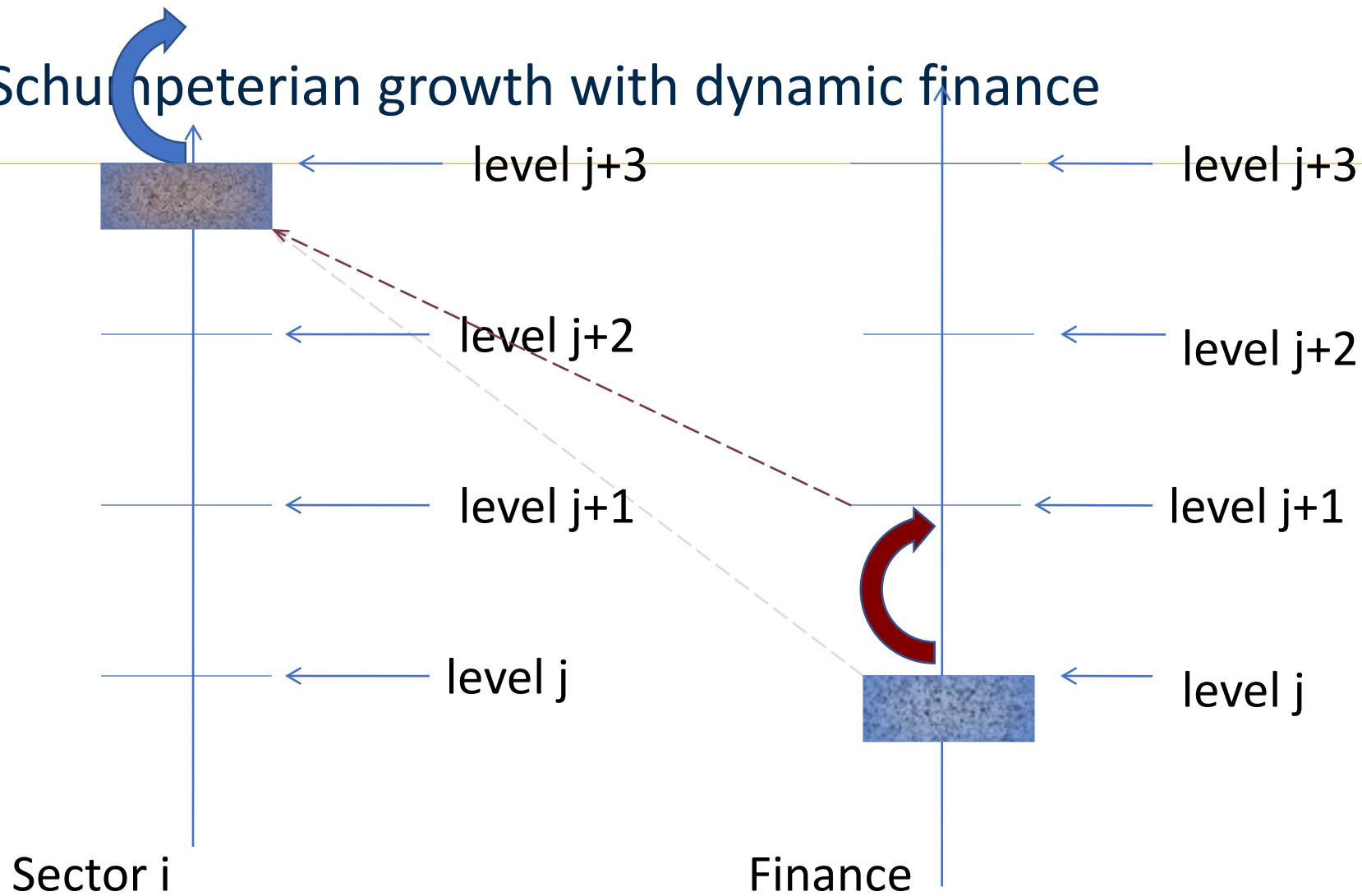
Schumpeterian growth with dynamic finance



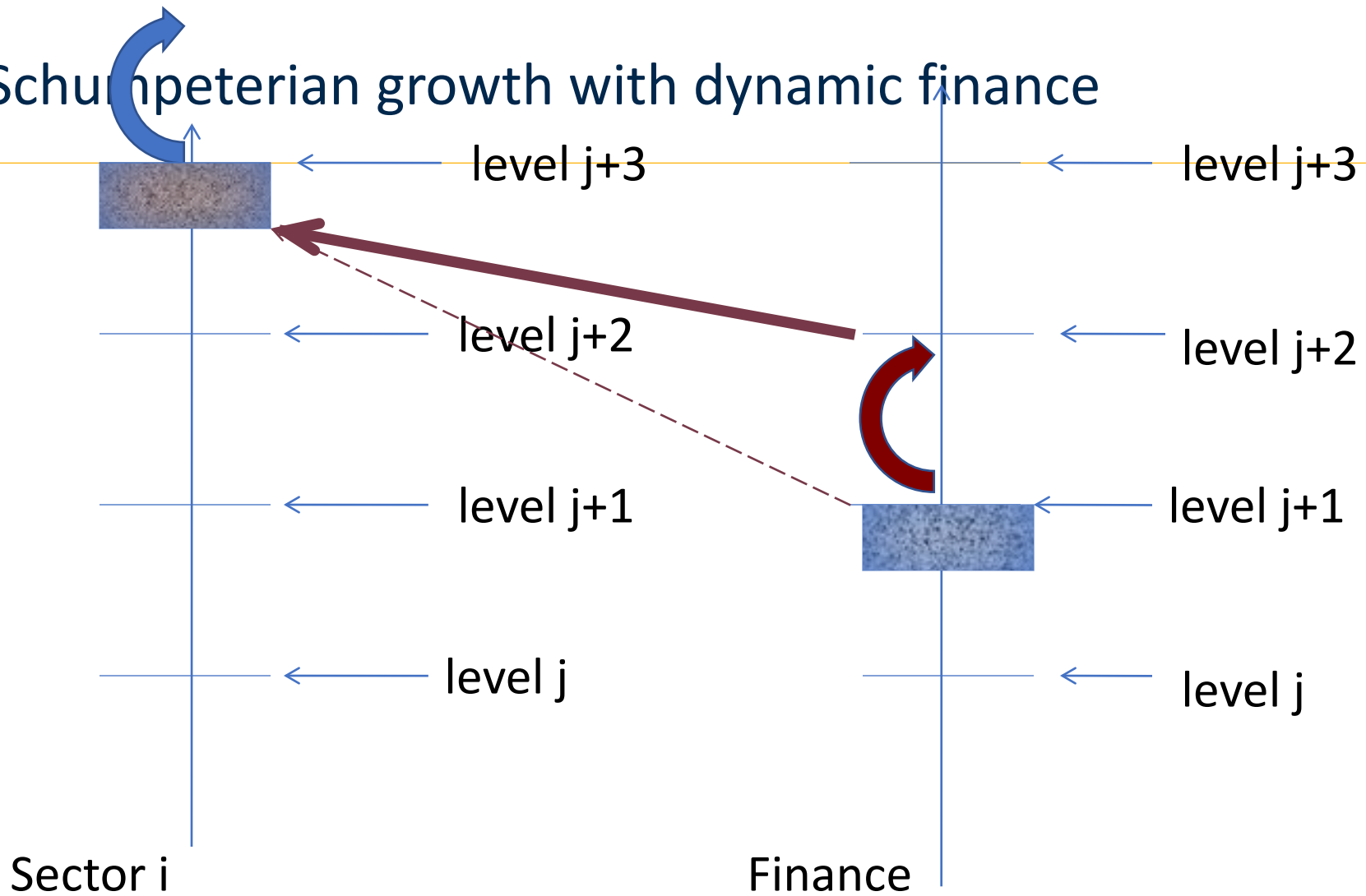
Add financial entrepreneurs

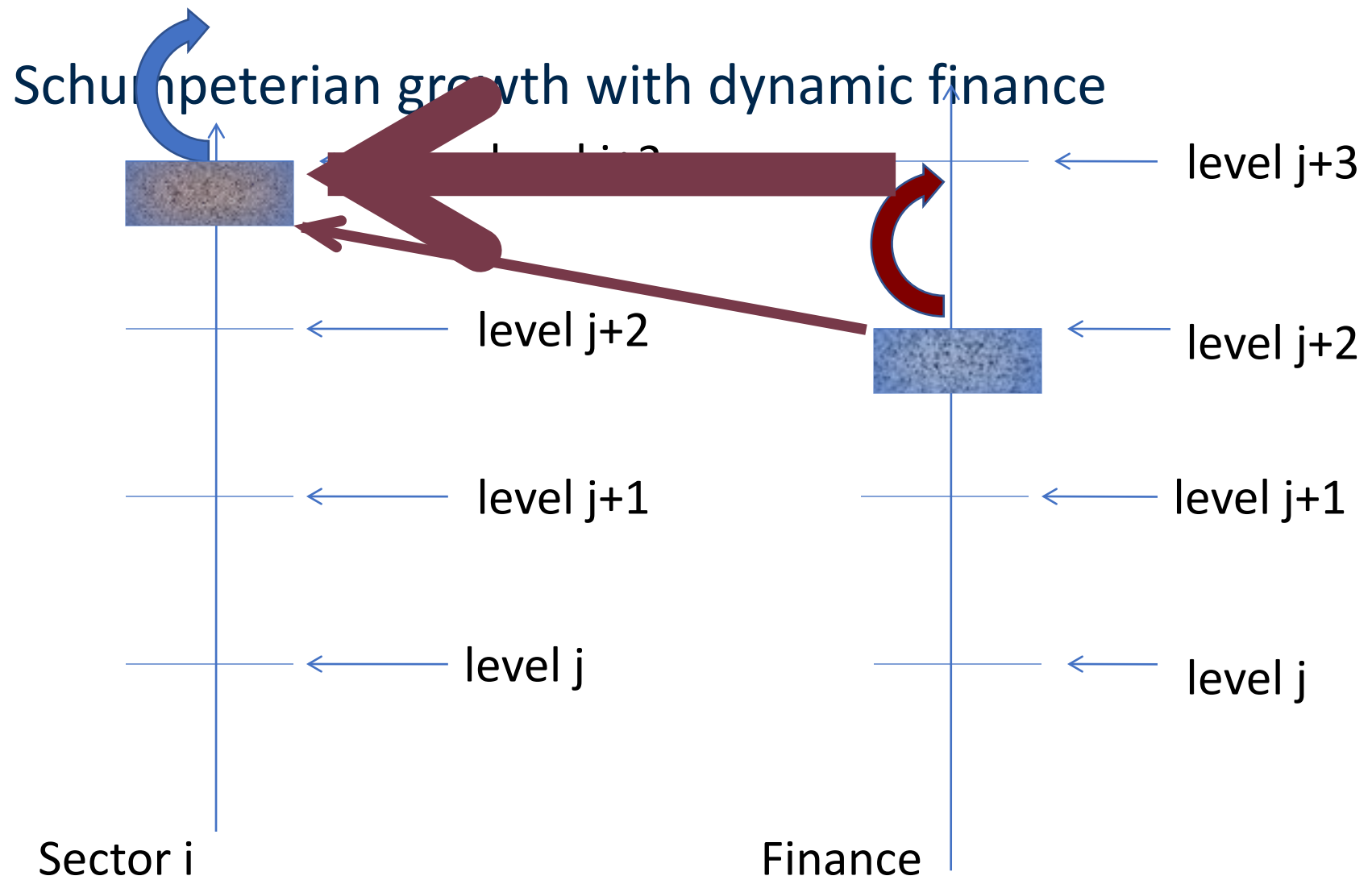
Profit-maximizing financiers engage in financial innovation

Schumpeterian growth with dynamic finance



Schumpeterian growth with dynamic finance

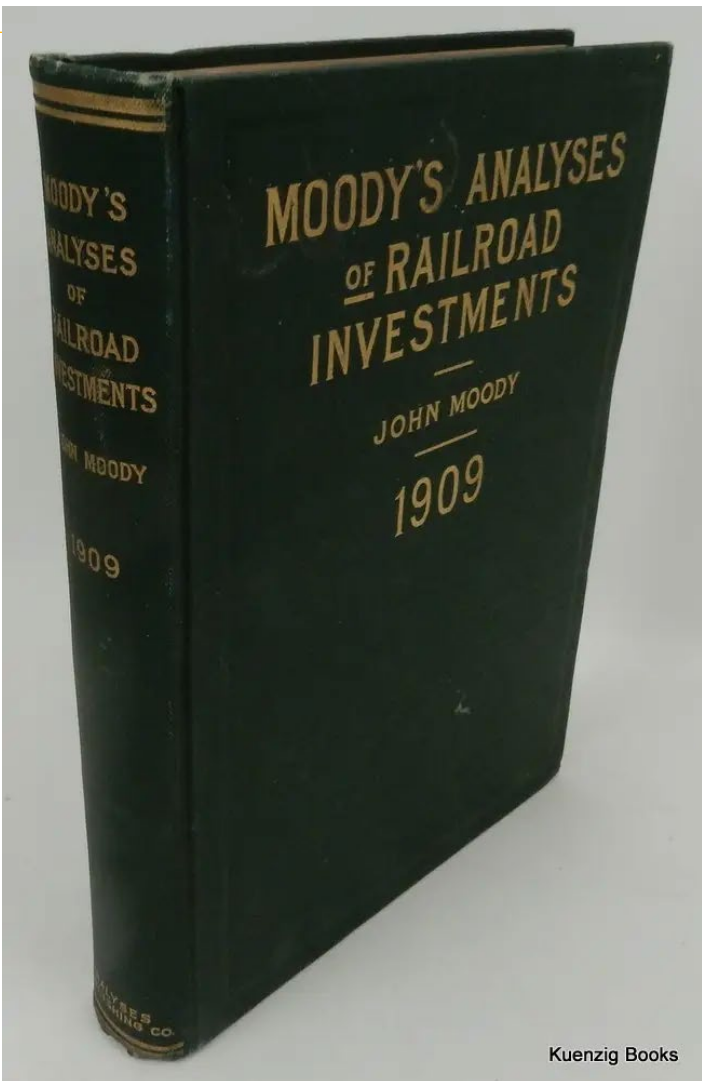




Implications

- Without financial innovation,
 - growth stops,
 - regardless of the level of financial development.
- Long-run growth only occurs with the co-evolution of screening ability and technological innovations.
- Policy perspectives:
 - a) How do policies affect financial innovation?
 - b) Must policies evolve dynamically to support innovation?

Back to Moody



- Moody was a financial entrepreneur
- Perhaps, we should view his 1909 innovation as
 - **one step on a ladder of financial innovations addressing evolving screening challenges.**

Consider Screening Pre-Moody: Poor's 1907 Manual of Railroads

no ratings

THE MISSOURI PACIFIC RAILWAY COMPANY.

(For map of this system, see page 688.)

INDEX TO THIS STATEMENT—REFERENCES TO NUMBERS OF SECTIONS.

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1. Mileage Operated, June 30, 1906.—A. LINES OWNED (total, 1,134.35 miles).

| | | |
|---|--------|--------|
| *Main Line : St. Louis, Mo., to 3d St., St. Louis, Kan..... | 330.11 | miles. |
| *Nebraska Extension : Central Branch Jc., Kan., to Papillion, Neb..... | 148.91 | " |
| *Sarpy County Extension : Papillion Junction to Sarpy County Line, Neb..... | 2.09 | " |
| *Poplar Street Truck : Eleventh St. to The Levee, St. Louis, Mo..... | 1.00 | " |
| *Laclede & Creve Coeur Lake Branch : Junction to Creve Coeur Lake, Mo..... | 11.99 | " |
| *Carondelet Branch : Kirkwood to Vulcan St., Carondelet, Mo..... | 12.55 | " |
| *Glencoe Branch : Glencoe to Lime Kilns, Mo..... | 4.00 | " |
| *Lebanon Branch : Jefferson City to Bagnell, Mo..... | 45.04 | " |
| *Jefferson City, Boonville and Lexington Branch : Cole Jc. to Myrick, Mo..... | 118.27 | " |
| *Marshall Branch : Marshall Junction to Marshall, Mo..... | 2.48 | " |
| *Lexington Branch : Sedalia via Lexington to Independence, Mo..... | 88.46 | " |
| *Lake City Branch : Lake City, Mo., to Atchison Connection..... | 7.76 | " |
| *Blackwater Branch : Warrensburg, Mo., to Stone Quarries..... | 3.00 | " |
| *Kansas and Arizona Division : Paola to Le Roy Junction, Kan..... | 67.23 | " |
| *Ottawa Branch : Osawatimie Junction to Ottawa, Kan..... | 21.62 | " |
| *Lexington & Southern Division : K. C., F. S. & M. Junc. to Joplin, Mo..... | 132.69 | " |
| *Webb City Spurs and Extensions : Oronogo to Granby, Mo..... | 24.29 | " |
| *Nebraska City Branch : Junc. with Neb. So. Ry. to Weeping Water, Neb..... | 26.76 | " |
| *Lincoln Branch : Weeping Water to Lincoln, Neb..... | 33.92 | " |
| *Crete Branch : Talmage to Crete, Neb..... | 58.18 | " |

B. PROPRIETARY ROADS—ENTIRE STOCK OWNED (total, 2,073.54 miles).

| | | |
|---|--------|---|
| *Omaha Belt Ry. : { Sarpy County Line to Omaha, Neb..... | 13.12 | " |
| { Summit Junction to West Side Junction, Neb..... | 3.05 | " |
| *St. Louis, Oak Hill & Carondelet Ry. : Tower Grove to Carondelet, Mo..... | 6.30 | " |
| *Joplin & Western Ry. : J. & W. Junction, to Grand Falls, Mo..... | 4.59 | " |
| *Fort Scott Central Ry. : Rich Hill Junction, Mo., to Cornell, Kan..... | 57.05 | " |
| *Nevada and Minden Ry. : Nevada, Mo., to Kansas State Line..... | 32.56 | " |
| *N. & M. Ry. of Kansas : Mo. State Line to Chetopa, Kan..... | 41.15 | " |
| *Nebraska Southern Ry. : Auburn, Neb., to Junc. with Neb. City Branch..... | 16.12 | " |
| *Omaha Southern Ry. : Union to Summit Junction, Neb..... | 25.44 | " |
| *Sedalia, Warsaw and Southwestern Ry. : Sedalia to Warsaw, Mo..... | 43.23 | " |
| *Carthage and Western Ry. : Carthage Junc. to Asbury Junc., Mo..... | 17.96 | " |
| *Kansas City Northwestern R.R. : Kan. City, Kan., to St. J. & G. I. RR. Con. | 117.04 | " |
| Virginia Section : Axtell Junction, Kan., to Virginia, Neb..... | 32.92 | " |
| Seneca Connection : H. B. Connec. St. J. & G. I. RR. siding to end of track..... | 0.08 | " |
| Leavenworth Branch : Menager Junction to Leavenworth, Kan..... | 11.61 | " |
| †Kansas and Colorado Pacific Ry. : Ottawa, Kan., to State Line, Col..... | 404.73 | " |
| Council Grove Connection : Spur Junc. to M., K. & T. Ry. Connection, Kan..... | 0.48 | " |
| Salina Loop : Gypsum City to Marquette, Kan..... | 27.30 | " |
| Great Bend Branch : Hoisington to Great Bend, Kan..... | 10.01 | " |
| Madison Line : Montith Junction, Mo., to Madison, Kan..... | 101.43 | " |
| Topeka Division : Fort Scott to Topeka, Kan..... | 131.00 | " |
| Wichita & Western Division : Fort Scott, Kan., to Ind. T. Boundary..... | 244.45 | " |
| Gillfillan Spur : Gillfillan, Kan., to Stone Quarries..... | 2.40 | " |
| McPherson Branch : El Dorado to McPherson, Kan..... | 62.40 | " |
| Wichita & Geneseo Line : West Wichita to Geneseo, Kan..... | 86.57 | " |
| Chetopa & Larned Line : Chetopa to Larned, Kan..... | 273.04 | " |
| Grouse Creek Division : Dexter to Arkansas City, Kan..... | 25.07 | " |
| †Pueblo and State Line R.R. : State Line, Kan., to Pueblo, Col..... | 152.12 | " |
| †Kanopolis and Kansas Central Ry. : Geneseo to Kanopolis, Kan..... | 14.16 | " |
| †Kansas Southwestern Ry. : Oleott Junction to Iuka, Kan..... | 24.91 | " |
| †Rooks County R.R. : Alton to Stockton, Kan..... | 18.25 | " |
| †Pacific Ry. in Nebraska : Warwick, Kan., to Prosser, Neb..... | 73.00 | " |

Pages of information on each railroad company!

- Mileage of lines operated
- Mileage of lines owned and % ownership

Brought forward.....3,207.89 miles.

C. LINES LEASED BY M. P. RY. CO. FOR SPECIFIC RENTALS (total, 224.06 miles).

| | | |
|--|-------|---|
| *Boonville, St. Louis & Southern Ry.: Versailles, to Boonville, Mo..... | 43.95 | " |
| *Kansas City & Southern Ry. (Mo.): K. C. & S. W. Jc., Mo., to State Line, Kan. | 20.70 | " |
| *Kansas City & Southern Ry. (Kan.): State Line, Mo., to S. W. Junc., Kan.. | 27.00 | " |
| *Verdigris Valley Div. K. & C. P. Ry.: Le Roy to Deering Junction, Kan.. | 80.63 | " |
| *Le Roy & Caney Valley Air-Line: Roper to Peru Junction, Kan..... | 51.78 | " |

D. TRACKAGE AND TERMINAL RIGHTS (total, 59.67 miles).

| | | |
|--|-------|---|
| *Central Branch Ry.: Atchison (8d St.) to Central Br. Junction, Kan..... | 1.89 | " |
| *Kansas City, Ft. Scott & M. R.R.: Pleasant Hill Jc. to K. C., F. S. & M. Jc., Mo. | 0.54 | " |
| *Atchison, Topeka and Santa Fe Ry.: Eton to Congo, Mo..... | 7.82 | " |
| *Chicago, Burlington & Quincy R.R.: Winthrop to St. Joseph, Mo..... | 21.00 | " |
| *Union Pacific Ry.: Gilmore Junction to Summit Junction, Neb..... | 5.47 | " |
| *Kansas City Southern Ry.: Pittsburg, Kan., to C. & W. Ry. Jc., Asbury, Mo. | 11.89 | " |
| *St. Joseph and Grand Island Ry.: Seneca to Axtell Junction, Kan..... | 10.77 | " |
| *Atch., Top. & Santa Fe Ry.: H. B. Connection to Soldiers' Home, Kan.... | 0.79 | " |

*Lines indicated thus are operated as main line—total length.....1,810.30 miles.

†Lines indicated thus are operated as branch lines—total length.....1,651.82 "

Total length of lines operated by Missouri Pacific Ry. Co.....3,491.62 miles.

Track Mileage.—Statement showing the mileage of all tracks operated by the Missouri Pacific Ry. Co., exclusive of trackage rights, June 30, 1906:

| | First Track. | Second Track. | Third Track. | Sid-ings. | Total Track. | Steel Rails.* |
|---|--------------|---------------|--------------|-----------|--------------|---------------|
| | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. |
| Owned and Proprietary { Main Line..... | 1,556.57 | 33.73 | 3.48 | 534.81 | 2,128.59 | 1,592.94 |
| { Branch Lines..... | 1,499.20 | | | 191.99 | 1,691.19 | 1,493.18 |
| Leased Lines (†) and Trackage Rights..... | 435.85 | | | 65.89 | 501.74 | 440.91 |
| Totals..... | 3,491.62 | 33.73 | 3.48 | 792.69 | 4,321.52 | 3,527.03 |

* Exclusive of side tracks. † Includes Pueblo and State Line R.R., a proprietary road, but treated as a leased line in the mileage statement given in the report of the Missouri Pacific Ry. Co.

Gauge, 4 ft. 8½ in. Rail, 52 to 85 lbs.

2. History.—Incorporated Oct. 21, 1876, and took over the property of the Pacific RR. Co. of Missouri, which had been sold under foreclosure Sept. 6, 1876. Consolidated, Aug. 11, 1880, with the St. Louis and Lexington RR., Kansas City and Eastern RR., Lexington and Southern RR., St. Louis, Kansas and Arizona RR., Missouri River RR. and Leavenworth, Atchison and Northwestern RR. (see MANUAL for 1891, page 784).

Proprietary and Controlled Roads.—The proprietary railroads are practically owned by the Missouri Pacific Ry. Co. and are fully incorporated into the system. The actual aggregate mileage of them is 2,154.16 miles, including the length of the Verdigris Valley Division of the Kansas and Colorado Pacific Ry., 80.63 miles, which is shown as a leased line in the mileage statement, the Missouri Pacific Ry. Co. being obliged to pay the interest on its bonds by way of rental. The Missouri Pacific Ry. Co. controls the St. Louis, Iron Mountain and Southern Ry. Co., and Central Branch Ry. Co., through the ownership of all or of a large majority of their capital stocks. For information respecting those companies, reference should be made to the separate statements therefor. The company also has large holdings in the shares of the Denver and Rio Grande Ry. Co., Texas and Pacific Ry. Co., and Wabash RR. Co., friendly interests controlling the remaining shares.

3. General Balance Sheet, June 30, 1906.

| | | | |
|--|------------------|--------------------------------------|------------------|
| Cost of Road, Equipment, etc..... | \$72,508,400 24 | Capital Stock (including amount ex- | |
| Supplies and Material..... | 3,375,612 10 | changed for Capital Stock of St. | |
| Investments..... | 92,890,793 28 | L. I. M. & S. Ry.)..... | \$77,817,875 00 |
| Construction Expenditures..... | 1,788,962 82 | Funded Debt (see Sec. 8)..... | 85,012,000 00 |
| Cash..... | 4,365,981 44 | Equipment Obligations..... | 6,136,000 00 |
| Discount Funds on Bonds Sold..... | 2,551,166 67 | Interest Due and Approved..... | 1,423,830 18 |
| Sundry Accounts Collectible..... | 4,191,722 44 | Accounts Payable..... | 6,722,088 20 |
| Sundry Property Accounts..... | 47,675 52 | Special Fund Account..... | 833,928 17 |
| Advances for Sundry Purposes..... | 1,999,534 70 | Due to the Central Branch Ry. Co. .. | 261,000 71 |
| Due from St. L., I. M. & S. Ry. Co. .. | 936,390 46 | Balance of Income Account..... | 6,455,423 61 |
| Total Assets..... | \$181,661,155 87 | Total Liabilities..... | \$181,661,155 87 |

• Corporate history

4. Property and General Balances.—Statement showing mileage of railroad owned and the general balances of the company for eight fiscal periods :

| | 1899 Dec. 31 | 1900 Dec. 31 | 1901 Dec. 31 | 1902 Dec. 31 | 1903 Dec. 31 | 1904 Dec. 31 | 1905 Dec. 31 | 1906 June 30 |
|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Miles Road Owned..... | 2,759 18 | 2,759 18 | 2,964 06 | 3,037 50 | 3,055 57 | 3,055 57 | 3,055 77 | 3,055 77 |
| Miles Track Owned *..... | 2,794 03 | 2,794 03 | 2,998 95 | 3,072 80 | 3,092 78 | 3,092 98 | 3,092 98 | 3,092 98 |
| Miles of Steel Rail..... | 2,740 67 | 2,747 70 | 2,955 79 | 3,042 96 | 3,076 84 | 3,077 04 | 3,086 12 | 3,086 12 |
| Capital Stock..... | \$ 47,448,650 | \$ 50,432,150 | \$ 76,402,875 | \$ 77,802,875 | \$ 77,802,875 | \$ 77,817,875 | \$ 77,817,875 | \$ 77,817,875 |
| Funded Debt..... | 62,138,000 | 65,374,000 | 54,012,000 | 56,042,000 | 59,788,800 | 65,925,000 | 91,661,000 | 91,148,000 |
| Unpaid Interest..... | 965,600 | 1,135,475 | 954,190 | 954,560 | 956,095 | 1,091,494 | 1,424,805 | 1,423,830 |
| Sundry Liabilities..... | 6,840,320 | 4,298,329 | 6,768,213 | 14,002,869 | 14,813,912 | 18,600,935 | 7,721,241 | 7,819,027 |
| Profit and Loss..... | 435,715 | 3,213,608 | 3,237,705 | 3,297,452 | 4,751,960 | 5,689,889 | 6,360,186 | 6,455,424 |
| Total Liabilities..... | 117,828,375 | 124,443,562 | 141,374,973 | 152,099,696 | 158,113,632 | 169,125,133 | 184,985,167 | 184,664,156 |
| Cost of Property..... | 55,232,633 | 55,987,012 | 61,212,577 | 64,405,998 | 69,116,287 | 69,392,340 | 70,689,719 | 72,508,400 |
| Materials and Supplies..... | 1,065,946 | 1,081,570 | 2,161,941 | 2,555,223 | 2,429,153 | 1,796,500 | 3,615,114 | 3,375,612 |
| Invest. in Stocks & Bonds..... | 56,013,672 | 60,101,122 | 71,331,557 | 72,048,540 | 72,005,620 | 72,738,743 | 77,302,021 | 92,890,793 |
| Cash and Other Assets..... | 5,516,125 | 7,273,858 | 6,668,898 | 13,089,935 | 14,562,572 | 25,197,650 | 33,478,313 | 15,889,351 |
| Total Assets..... | 117,828,375 | 124,443,562 | 141,374,973 | 152,099,696 | 158,113,632 | 169,125,133 | 184,985,167 | 184,664,156 |

* Excluding side tracks.

5. General Income Account, year ending June 30, 1906.

| EARNINGS. | Main Line. | Branches. | Total. | EXPENSES. | Main Line. | Branches. | Total. |
|--------------------|-----------------|-----------------|-----------------|----------------------|-----------------|---------------|-----------------|
| Passenger..... | \$ 3,078,463 56 | \$ 1,323,455 94 | \$ 4,401,929 50 | Maint. of Way..... | \$ 1,800,111 86 | \$ 977,342 04 | \$ 2,777,353 40 |
| Freight..... | 10,440,945 28 | 4,901,348 48 | 15,342,293 76 | Maint. of Equip..... | 1,667,032 34 | 1,413,973 89 | 3,081,012 23 |
| Mail and Exp..... | 231,986 36 | 232,986 71 | 464,973 07 | Transportation..... | 6,277,648 05 | 2,777,579 04 | 9,055,227 69 |
| Miscellaneous..... | 511,662 41 | 40,778 39 | 552,440 80 | General..... | 707,874 77 | 246,916 14 | 954,790 91 |
| Totals..... | 14,962,417 61 | 6,517,682 52 | 21,480,100 13 | Totals..... | 10,452,666 52 | 5,415,717 71 | 15,868,384 23 |
| Aver. per M..... | 8,130 42 | 3,946 95 | 6,151 91 | Aver. per M..... | 5,677 03 | 3,279 68 | 4,544 71 |

| | | | |
|--|-----------------|---|-----------------|
| Net Earnings, Main Line (30.14 p. c.)..... | \$4,509,751 09 | Interest on Bonds..... | \$3,854,637 50 |
| Net Earnings, Branches (16.01 p. c.)..... | 1,101,964 81 | Interest on Gold Notes..... | 300,000 00 |
| W. & C. Tpk. & Fy. Co. Surplus..... | 6,900 07 | Taxes..... | 813,392 03 |
| Dividends Received..... | 6,373,477 60 | Rentals of Leased Lines..... | 179,008 40 |
| Rentals Received..... | 46,492 28 | Sundry Charges..... | 541,550 08 |
| Sundry Receipts..... | 583,788 10 | Dividend No. 53 (2½ p. c., July, 1905)..... | 1,945,435 00 |
| Total Net Income..... | \$12,621,373 95 | Dividend No. 54 (2½ p. c., Dec., 1905)..... | 1,945,435 00 |
| | | Dividend No. 55 (2½ p. c., June, 1906)..... | 1,945,435 00 |
| | | Total Deductions..... | \$11,534,893 01 |

Surplus income, \$1,096,480.94; surplus to June 30, 1905, \$5,358,942.67—total surplus, June 30, 1906, \$6,455,423.61.

6. Statement showing the details of dividends and rentals received and of interest and rentals paid as per income account.

Dividends Received.

| | |
|--|--------------|
| American Refrigerator Transit Co..... | \$15,499 30 |
| Baring Cross Bridge Co..... | 10,500 00 |
| Coal Companies..... | 410,000 00 |
| Pacific Express Co..... | 144,000 00 |
| Union Depot Companies..... | 4,475 00 |
| Southwest Lead & Zinc Works..... | 2,100 00 |
| The Mo. Pac. Ry. Co..... | 20,500 00 |
| St. L. & Miss. Valley Transp. Co..... | 1,173 50 |
| Denver & Rio Grande RR. Co..... | 547,500 00 |
| Central Branch Ry. Co..... | 1,061,900 00 |
| Pueblo Stock Yards Co..... | 20,000 00 |
| Certificates of Mo. Pac. Equip. Ass'n..... | 250 00 |
| Interest on Trust 5 p. c. Bonds of the Mo. Pac. Ry..... | 50 00 |
| Interest on 1st Mgt. Bonds Series "A" K. C. & N. W. RR..... | 100 00 |
| Interest on 1st Mgt. Bonds Southern Ill. and Missouri Bridge Co..... | 10,400 00 |
| Int. on 1st Mgt. Bonds, Pacific RR. of Mo..... | 160 00 |
| Int. on 1st Mgt. Bonds, Conventria Coal Co..... | 15,000 00 |
| Int. on 1st Mgt. Bonds, Nat. Sugar Mfg. Co..... | 1,710 00 |
| Int. on Gold Coup. Cert., Nat. Sugar Mfg. Co..... | 305 20 |
| Dividends on Capital Stock of St. L. I. M. & S. Ry. Co. exchanged for Capital Stock of Missouri Pac. Ry. Co..... | 4,106,954 60 |

Rentals Received.

| | |
|---|--------------|
| Iron Mountain RR. of Memphis..... | \$20,000 00 |
| Kansas City Northwestern RR..... | 26,492 28 |
| <i>Accrued Interest on Bonds.</i> | |
| Pac. RR. of Mo., 1st Mgt..... | \$220,000 00 |
| Pac. RR. of Mo., 2d Mgt..... | 128,650 00 |
| P. RR. of Mo., Real Estate Security..... | 40,000 00 |
| Pac. RR. of Mo., Carondelet Br. 1st Mgt..... | 10,687 50 |
| Mo. Pac. Ry. 3d Mgt..... | 267,960 00 |
| Mo. Pac. Ry., Lexington Branch 1st Mgt..... | 32,500 00 |
| The Mo. Pac. Ry., Consol. Mgt..... | 894,240 00 |
| Trust Five per Cent..... | 718,800 00 |
| 1st Collateral Mortgage..... | 481,800 00 |
| 4 p. c. Gold Loan..... | 1,000,000 00 |
| <i>Rentals of Leased Lines.</i> | |
| Boonville, St. Louis & Southern Ry..... | \$25,000 00 |
| Hannibal & St. Joseph Trackage..... | 10,658 36 |
| Kan. City, St. Joseph & Council Bluffs Track..... | 7,000 00 |
| The Central Branch Trackage..... | 7,382 04 |
| Le Roy and Cancy Val. Air-Line RR..... | 26,000 00 |
| Vardolis Val., Independ. & West RR..... | 40,200 00 |
| Kansas City and Northwestern RR..... | 51,300 00 |
| Atchison, Topeka and Santa Fe Ry..... | 7,200 00 |
| St. Joseph and Grand Island Ry. Trackage..... | 4,000 00 |
| Kan. Cy., Clinton & Springfield Ry. Trackage..... | 168 00 |

• Income Accounts

7. Dividends Paid.—From the date of its organization to June 30, 1906, the company paid a total of 55 cash dividends aggregating 92½ per cent., or \$43,071,181. The rates, dates and amounts of these dividends are shown in the following statement:

| YEARS. | Rate. | Amount. | YEARS. | Rate. | Amount. | YEARS. | Rate. | Amount. | YEARS. | Rate. | Amount. |
|-----------|-------|-----------|-----------|-------|-------------|------------|-------|-------------|-----------|-------|-------------|
| 1880..... | p. c. | | 1885..... | p. c. | | 1890..... | p. c. | | 1903..... | p. c. | |
| 1881..... | 1½ | \$186,297 | 1886..... | 7 | \$2,098,236 | 1891..... | 3 | \$1,823,498 | 1904..... | 5 | \$3,890,112 |
| 1882..... | 6 | 1,524,167 | 1887..... | 7 | 2,531,770 | 1892..... | 3 | 422,860 | 1905..... | 5 | 3,890,491 |
| 1883..... | 6½ | 1,946,419 | 1888..... | 7½ | 3,008,174 | 1892-1900. | Nil. | | 1906..... | 5 | 3,890,870 |
| 1884..... | 7 | 2,097,339 | 1889..... | 5½ | 1,539,120 | 1901..... | 2½ | 1,653,753 | | | |
| 1884..... | 7 | 2,098,106 | 1889..... | 4 | 1,758,994 | 1902..... | 5 | 3,820,103 | | | |

8. Capital Stock.—The authorized capital stock is \$100,000,000 in shares of \$100 each.

9. Funded Debt.—The funded debt outstanding on June 30, 1906, consisted of the following issues of bonds:

\$7,000,000 Pacific RR. (Mo.) 1st mtge. 5 p. c. gold bonds, dated Aug. 1, 1888, due Aug. 1, 1898, extended to Aug. 1, 1938, interest Feb. 1 and Aug. 1, at office of trustee, Mercantile Trust Co., New York, N. Y. Coupon bonds, \$1,000 each, registerable as to principal, at Mercantile Trust Co., New York, N. Y. Secured on the main line from St. Louis to Kansas City, Mo., 283.74 miles.

\$2,573,000 Pacific RR. (Mo.) 2d mtge. 5 p. c. gold bonds, dated July 1, 1871, due July 1, 1891, extended to July 1, 1938, interest Jan. 1 and July 1, at Mercantile Trust Co., New York, N. Y. Coupon bonds, \$1,000 each, registerable as to principal, at Mercantile Trust Co., New York, N. Y. Sinking fund, \$50,000 per annum, applicable to purchase of bonds at or under par. Secured by second mortgage on the main line from St. Louis to Kansas City, Mo., 283.74 miles. Trustees: E. D. Morgan and Joseph Seligman.

\$800,000 Pacific RR. (Mo.) St. Louis City real estate mtge. 5 p. c. gold bonds, dated May 1, 1872, due May 1, 1892, extended to May 1, 1938, interest May 1 and Nov. 1, at Mercantile Trust Co., New York, N. Y. Coupon bonds, \$500 and \$1,000, registerable as to principal alone or as to both principal and interest, at Mercantile Trust Co., New York, N. Y. Secured by first mortgage on four blocks of ground in St. Louis, Mo., valued at \$2,500,000. Trustees: R. J. Lackland and Dwight Durkee.

\$245,000 Carondelet Branch, Pac. RR. of Mo., 1st mtge. 4½ p. c. gold bonds, dated Oct. 1, 1873, due Oct. 1, 1893, extended to Oct. 1, 1938, interest April 1 and Oct. 1, at National Bank of Commerce, New York, N. Y. Coupon bonds, \$500 and \$1,000, registerable as to principal, at Mercantile Trust Co., New York, N. Y. Secured by first mortgage on the branch from Kirkwood to Carondelet, Mo., 12.11 miles. Trustees: Jesse Seligman, New York, N. Y., and James Baker, St. Louis, Mo.

\$3,828,000 Mo. Pac. Ry. 3d mtge. 4 p. c. gold bonds, dated Nov. 1, 1876, due Nov. 1, 1906, extended to July 1, 1938, but subject to redemption at any time before then, at 105 and interest, on four weeks' notice. Interest payable May 1 and Nov. 1, at Mercantile Trust Co., New York, N. Y. Coupon bonds, \$1,000 each, registerable as to principal, at Mercantile Trust Co., New York, N. Y. Secured by third lien on the main line from St. Louis to Kansas City and by second lien on the Carondelet Branch, and on the property covered by the St. Louis City real estate mortgage. Trustee: Central Trust Co., New York, N. Y.

\$650,000 Mo. Pac. R., Lexington Div. 1st mtge. 5 p. c. 40-yr. gold bonds, due Aug. 1, 1920, interest Feb. 1 and Aug. 1, at Mercantile Trust Co., New York, N. Y. Coupon bonds, \$500 and \$1,000, registerable as to principal, at Mercantile Trust Co., New York, N. Y. Secured by first mortgage on the line from Lexington to Sedalia, Mo., 65.5 miles. Trustee: Jesse Seligman, New York, N. Y.

\$14,904,000 Mo. Pac. Ry. consol. 1st mtge. 5 p. c. 40-yr. gold bonds, due Nov. 1, 1920, interest May 1 and Nov. 1, at Mercantile Trust Co., New York, N. Y. Coupon bonds, \$1,000 each, registerable as to principal, at Mercantile Trust Co., New York, N. Y. Authorized issue, \$30,000,000, the unissued bonds being reserved for the retirement of prior liens. Secured on the main line from

St. Louis, Mo., to Sarpy County Line, Neb., 482.11 miles, and on other lines and branches (Lexington, LaCade and Creve Coeur Lakes, Colorado, Blackwater, Glencoe, Lebanon, Kansas and Arizona, Lawrence, Lexington and Southern, Lincoln, Jefferson City-Lexington and Nussau-Chetopa), aggregating 578.49 miles, together with all franchises, rolling stock, etc., now owned or that may be hereafter acquired, but subject to the six issues of underlying bonds as to the lines and property covered thereby. Trustees: John F. Dillon and Edward D. Adams.

\$14,376,000 Mo. Pac. Ry. trust 5 p. c. 30-yr. gold bonds, due Jan. 1, 1917, interest March 1 and Sept. 1, at Mercantile Trust Co., New York, N. Y. Coupon bonds, \$1,000 each, registerable to principal and interest, at Mercantile Trust Co., New York, N. Y. There is no provision for registering principal alone, and bonds once registered may not be reconverted into coupon bonds. Secured by deposit in trust of \$17,215,000 1st mtge. bonds covering 1,120.43 miles of railway controlled or operated as part of its system by the Missouri Pacific Ry. Co. (see Section 11). Authorized issue, \$15,000,000, limited to actually completed mileage of railroads whose 1st mtge. bonds are deposited in trust as above. Trustee: Union Trust Co., New York, N. Y.

\$9,636,000 Mo. Pac. Ry. 1st coll. mtge. 5 p. c. 30-yr. gold bonds, due Aug. 1, 1920, interest Feb. 1 and Aug. 1, at office of trustee, Mercantile Trust Co., New York, N. Y. Coupon bonds, \$1,000 each, registerable as to principal alone or as to both principal and interest, at Mercantile Trust Co., New York, N. Y. Secured by deposit in trust of \$12,045,000 1st mtge. bonds covering 675 miles of railway controlled by the Missouri Pacific Ry. Co. Authorized issue, \$10,000,000, but limited to an amount not exceeding 80 p. c. of the par value of the deposited and underlying 1st mtge. bonds of auxiliary companies.

\$25,000,000 Mo. Pac. Ry. 40-yr. 4 p. c. gold bonds of 1905, due March 1, 1945, interest March 1 and Sept. 1, at Mercantile Trust Co., New York, N. Y. Redeemable at 102½ p. c. and accrued interest on any interest day before maturity, on at least three months' published notice. Coupon and registered bonds, \$500 and \$1,000 or such other denominations as the board of directors or the executive committee shall authorize. Coupon bonds may be registered as to principal alone or may be exchanged for registered bonds, and registered bonds may be exchanged for coupon bonds, at the Mercantile Trust Co., New York, N. Y. The company may, at its option, increase this loan to \$50,000,000, thus providing resources for future capital requirements. The bonds are a direct obligation of the Missouri Pacific Ry. Co. and are secured by a trust indenture, dated Feb. 15, 1905, to the Mercantile Trust Co., trustee, and by pledge of capital stock of the St. Louis, Iron Mountain and Southern Ry. Co. equal at par to the par amount of the bonds outstanding. The trust indenture provides that at least a majority of all the capital stock of St. Louis, Iron Mountain and Southern Ry. Co. now or hereafter issued and outstanding shall be pledged thereunder, and the Missouri Pacific Ry. Co. covenants that it will not, by voting or abstaining from voting, sanction or permit the creation by St. Louis, Iron Mountain and Southern Ry. Co. of any capital stock having preference or

- Dividends paid
- Bond issuances

priority as to dividends or otherwise over the capital stock pledged under the trust indenture. The Missouri Pacific Ry. Co. also covenants that it will not sanction or permit the creation by St. Louis, Iron Mountain and Southern Ry. Co. of any bonded indebtedness or other liability, in addition to its bonded indebtedness at present authorized, except for the purpose of funding, extending or retiring its said present authorized bonded indebtedness, or for new property at a fair value not exceeding cost. The Missouri Pacific Ry. Co. further covenants in the trust indenture against the issue of any additional capital stock by St. Louis, Iron Mountain and Southern Ry. Co. except at not less than its par value for new acquisitions, betterments, improvements, or for money.

10. Securities Deposited as Collateral.—Statement showing subsidiary bonds deposited with trustees, covered by the Trust 5 p. c. and 1st Collateral Mtge. bonds of The Missouri Pacific Ry. Co., as stated in preceding statement of bonded debt, interest on which accrues to The Missouri Pacific Ry. Co.:

| MORTGAGES. | Miles. | Date of Mortgage. | Date of Bond. | Maturity of Bond. | AMOUNT. | | Rate of Interest. | Total Annual Interest Accruing to the Co. Pac. Ry. |
|--|----------|-------------------|----------------|-------------------|--------------|---------------|-------------------|--|
| | | | | | Author-ized. | Outstand-ing. | | |
| A. COVERED BY MO. PAC. TRUST 5 P. C. BONDS: | | | | | | | | |
| Den. & A. & R. Ry., 1st Mtg. | 411.56 | July 1, 1886 | July 1, 1886 | July 1, 1916 | 16 M. p. m. | \$ 6,561,000 | 6 g. | \$ 393,690 |
| Wich. & Col. Ry., 1st Mtg. | 46.47 | July 1, 1886 | July 1, 1886 | July 1, 1911 | 15 M. p. m. | 705,000 | 6 g. | 42,300 |
| Kan. & Col. RR., 1st Mtg. | 136.02 | Aug. 2, 1886 | July 1, 1886 | July 1, 1926 | 15 M. p. m. | 2,041,000 | 6 g. | 122,460 |
| F. S., W. & W. Ry., 1st Mtg. | 309.25 | Aug. 1, 1887 | Aug. 1, 1887 | Jan. 1, 1917 | 4,066,000 | 4,666,000 | 7 g. | 326,620 |
| S. S. & E. P. RR., 1st Mtg. | 40.10 | Dec. 1, 1886 | Dec. 1, 1886 | Dec. 1, 1926 | 15 M. p. m. | 600,000 | 6 g. | 36,000 |
| Kan. So. W. n Ry., 1st Mtg. | 24.91 | Jan. 1, 1887 | Jan. 1, 1887 | Jan. 1, 1917 | 15 M. p. m. | 372,000 | 6 g. | 22,320 |
| P. & State L. RR., 1st Mtg. | 152.12 | Oct. 1, 1887 | Oct. 1, 1887 | Oct. 1, 1917 | 15 M. p. m. | 2,270,000 | 5 g. | 113,500 |
| Totals..... | 1,120.43 | | | | | 17,215,000 | | 1,066,890 |
| B. COVERED BY MO. PAC. 1ST COLL. MTGE. BONDS: | | | | | | | | |
| Top., S. & W. RR., 1st Mtg. | 751.73 | Jan. 1, 1883 | Jan. 1, 1883 | Jan. 1, 1923 | 4,000,000 | 1,273,000 | 6 g. | 76,380 |
| Rooks Co. RR., 1st Mtg. | 18.25 | Jan. 1, 1886 | Jan. 1, 1886 | Jan. 1, 1911 | 275,000 | 275,000 | 6 c. | 16,500 |
| K., N. & D. Ry., 1st Mtg. | 131.00 | April 1, 1886 | April 1, 1886 | April 1, 1916 | 2,400,000 | 2,055,000 | 6 g. | 123,300 |
| The M. P. Ry. in K., 1st M. | 19.42 | July 1, 1886 | July 1, 1886 | July 1, 1911 | 300,000 | 300,000 | 6 c. | 18,000 |
| C. G. & O. C. & O. Ry., 1st M. | 69.53 | Aug. 16, 1886 | Aug. 16, 1886 | July 1, 1911 | 1,110,000 | 1,110,000 | 6 g. | 66,600 |
| K. C. & S. n Ry. of Mo., 1st M. | 20.70 | Sept. 1, 1886 | Sept. 1, 1886 | Sept. 1, 1926 | 30 M. p. m. | 407,000 | 6 g. | 24,420 |
| K. C. & S. n Ry., 1st Mtg. | 27.00 | Sept. 1, 1886 | Sept. 1, 1886 | Sept. 1, 1926 | 20 M. p. m. | 550,000 | 6 g. | 33,000 |
| Grouse Creek Ry., 1st Mtg. | 25.07 | July 1, 1887 | July 1, 1887 | July 1, 1927 | 300,000 | 300,000 | 6 g. | 18,000 |
| C. G. & S. V. & W. Ry., 1st M. | 27.20 | July 18, 1887 | July 18, 1887 | July 1, 1917 | 15 M. p. m. | 417,000 | 6 c. | 25,020 |
| St. L., O. H. & C. Ry., 1st M. | 6.30 | Sept. 1, 1887 | Sept. 1, 1887 | Sept. 1, 1917 | 400,000 | 400,000 | 6 g. | 24,000 |
| Pac. Ry. in Neb., 1st Mtg. | 73.00 | Sept. 20, 1887 | Sept. 20, 1887 | Sept. 20, 1907 | 15 M. p. m. | 1,095,000 | 5 g. | 54,750 |
| I. Mt. RR. of Mem., 1st M. | 1.07 | Nov. 10, 1888 | Nov. 10, 1888 | Nov. 1, 1908 | 500,000 | 500,000 | 6 g. | 30,000 |
| Inter-State Ry., 1st Mtg. | 101.43 | July 10, 1890 | July 10, 1890 | July 1, 1920 | 16 M. p. m. | 1,622,000 | 6 g. | 97,320 |
| Fr. Scott Central Ry. | | | | | | | | |
| Fr. S. & E. Ry., 1st Mtg. | 26.27 | Feb. 2, 1891 | Feb. 2, 1891 | Feb. 1, 1921 | 15 M. p. m. | 394,000 | 5 g. | 19,700 |
| Fr. S. B. T. Ry., 1st Mtg. | 3.91 | Feb. 2, 1891 | Feb. 2, 1891 | Feb. 1, 1921 | 50 M. p. m. | 195,000 | 5 g. | 9,750 |
| Fr. S. & S. Ry., 1st Mtg. | 26.87 | Feb. 2, 1891 | Feb. 2, 1891 | Feb. 1, 1921 | 15 M. p. m. | 383,000 | 5 g. | 19,150 |
| Neb. So. Ry., 1st Mtg. | 16.12 | Jan. 1, 1892 | Jan. 1, 1892 | Jan. 1, 1922 | 15 M. p. m. | 242,000 | 5 g. | 12,100 |
| Omaha So. Ry., 1st Mtg. | 25.41 | Jan. 1, 1892 | Jan. 1, 1892 | Jan. 1, 1922 | 15 M. p. m. | 382,000 | 5 g. | 19,100 |
| Joplin & W. Ry., 1st Mtg. | 4.59 | June 1, 1892 | June 1, 1892 | June 1, 1922 | 15 M. p. m. | 69,000 | 5 g. | 3,450 |
| Totals..... | 675.00 | | | | | 12,045,000 | | 695,100 |

- Securities as collateral
- Equipment

11. Equipment Obligations.—The following statement shows the condition of the Missouri Pacific Equipment Association on June 30, 1906:

| | Date. | Payable. | Original Amount. | Amount Paid. | Amount Outstanding. | EQUIPMENT COVERED. |
|-----------|---------------|------------------------------|------------------|---------------|---------------------|--|
| Series A | Aug. 27, 1902 | \$ 203,000, Sept. 1, 1906-12 | \$ 2,032,975 00 | \$ 611,975 00 | \$ 1,421,000 | 1500 Box, 500 Coal, 7 Bag., 5 Comb. & 2 Postal Cars, & 11 Pass. & 25 Frt. Locos. |
| Series B1 | Jan. 17, 1903 | 30,000, Mar. 1, 1906-12 | 390,000 00 | 156,000 00 | 234,000 | 27 Locomotives. |
| Series B2 | Feb. 17, 1903 | 58,000, Mar. 1, 1906-12 | 587,750 00 | 339,750 00 | 248,000 | 500 Steel Gondola Cars. |
| Series C | Apr. 29, 1903 | 282,000, June 1, 1906-13 | 2,825,447 25 | 851,447 25 | 1,974,000 | 25 Coaches, 10 Chair Cars, 5 Bag., 3 Comb., 2,150 Box, 500 Stock Cars, 24 Locos. |
| Series D | Dec. 15, 1903 | 25,000, Dec. 1, 1906-13 | 256,800 00 | 56,800 00 | 200,000 | 300 Gondola Cars. |
| Series E | June 15, 1904 | 30,000, Dec. 1, 1906-13 | 300,750 00 | 60,750 00 | 240,000 | 20 Locomotives. |
| Series F | Dec. 15, 1904 | 48,000, Dec. 1, 1906-14 | 489,688 84 | 57,688 84 | 432,000 | 500 Gondola Cars, 2 Coaches, 1 Chair, 1 Dining, 1 Post, and 1 Combination Cars. |
| Series G | June 15, 1905 | 43,000, June 1, 1907-15 | 431,250 00 | 44,250 00 | 387,000 | 25 Locos., 10 Postal Cars. |
| Series H | Aug. 15, 1905 | 100,000, Mar. 1, 1907-15 | 1,004,955 00 | 104,955 00 | 900,000 | 500 Box and 1,000 Coal Cars. |
| | | | 8,319,616 09 | 2,183,616 09 | 6,136,000 | |

12. Stocks and Bonds Owned.—Statement showing investments in stocks, bonds, and other properties by The Missouri Pacific Ry. Co., June 30, 1906:

| DESCRIPTION. | No. of Shares or Bonds. | Amount. | DESCRIPTION. | No. of Shares or Bonds. | Amount. |
|--|-------------------------------|----------------|--------------|-------------------------------|---------|
| I. SECURITIES OWNED: | | | | | |
| (A.) Deposited as Collateral: | | | | | |
| 1. For Trust 5 p.c. Bonds (total par, \$17,215,000; cost \$14,376,000): | | | | | |
| First Mortgage Bonds: | | | | | |
| Kansas and Colorado RR..... | 2,041 | \$2,041,000 00 | | | |
| Den., Mem. & Atlantic Ry..... | 6,561 | 6,561,000 00 | | | |
| Pueblo & State Line RR..... | 2,270 | 2,270,000 00 | | | |
| Ft. Scott, Wichita & W. Ry..... | 1 Bond | 4,666,000 00 | | | |
| Wichita & Colorado Ry..... | 705 | 705,000 00 | | | |
| Salina, Ster. & El Paso RR..... | 600 | 600,000 00 | | | |
| Kansas Southwestern Ry..... | 372 | 372,000 00 | | | |
| 2. For 1st Coll. Bonds (total par, \$12,045,000; cost \$9,636,000): | | | | | |
| First Mortgage Bonds: | | | | | |
| Coun. G'v. O. C'y & O. Ry..... | 1,110 | 1,110,000 00 | | | |
| Topeka, Salina & West. RR..... | 1,273 | 1,273,000 00 | | | |
| The Mo. Pac. Ry. in Kansas..... | 300 | 300,000 00 | | | |
| Coun. Gr., Sm. Vy. & W. Ry..... | 417 | 417,000 00 | | | |
| Kan., Neb. & Dakota Ry..... | 2,055 | 2,055,000 00 | | | |
| Grouse Creek Ry..... | 376 | 376,000 00 | | | |
| Rooks County RR..... | 275 | 275,000 00 | | | |
| Pacific Ry. in Nebraska..... | 1,095 | 1,095,000 00 | | | |
| Interstate Ry..... | 1,622 | 1,622,000 00 | | | |
| St. L., O. Hill & Caron. Ry..... | 400 | 400,000 00 | | | |
| Kan. City & Southwestern Ry..... | 550 | 550,000 00 | | | |
| Kan. City & Southw. Ry. of Mo..... | 407 | 407,000 00 | | | |
| Ft. S. C. Ry., Ft. S. & East. Ry..... | 394 | 394,000 00 | | | |
| " " Ft. S. B. T. Ry..... | 195 | 195,000 00 | | | |
| " " Ft. S. & So. Ry..... | 343 | 343,000 00 | | | |
| Joplin & Western Ry..... | 69 | 69,000 00 | | | |
| Omaha Southern Ry..... | 242 | 242,000 00 | | | |
| Nebraska Southern Ry..... | 242 | 242,000 00 | | | |
| Iron Mountain RR. of Mem..... | 500 | 500,000 00 | | | |
| 3. For 2 yr. Gold Notes (total par, \$18,500,000; cost, \$11,490,565.42): | | | | | |
| Capital Stock: | | | | | |
| Wabash RR., Pref..... | 20,000 | \$2,000,000 00 | | | |
| Den. & Rio Grande RR., Pref..... | 40,000 | 4,000,000 00 | | | |
| Den. & Rio Grande RR., Com..... | 100,000 | 10,000,000 00 | | | |
| St. L., I. M. & So. Ry..... | 25,000 | 2,500,000 00 | | | |
| 4. For 40-yr. Gold Loan (cost \$19,588,250): | | | | | |
| Capital Stock: | | | | | |
| St. L., I. M. & S. Ry..... | 250,000 | 25,000,000 00 | | | |
| (B.) Held in Treasury (total par, \$87,854,345.87; cost \$37,761,114.87): | | | | | |
| Capital Stock: | | | | | |
| The Missouri Pacific Ry..... | 4,100 | 410,000 00 | | | |
| St. L., Iron Moun. & So. Ry..... | 168,354 | 16,835,400 00 | | | |
| Kan. & Col. Pac. Ry..... | 223,035 | 22,303,500 00 | | | |
| Pueblo & State Line RR..... | 15,500 | 1,550,000 00 | | | |
| Rooks County RR..... | 4,400 | 440,000 00 | | | |
| Pacific Ry. in Nebraska..... | 10,358 | 1,035,800 00 | | | |
| S. L., O. Hill & Caron. Ry..... | 4,000 | 400,000 00 | | | |
| Omaha Southern Ry..... | 3,823 | 382,300 00 | | | |
| Nebraska Southern Ry..... | 2,418 | 241,800 00 | | | |
| Ft. Scott Central Ry..... | 11,118 | 1,111,800 00 | | | |
| Joplin & Western Ry..... | 916 | 91,600 00 | | | |
| Omaha Belt Ry..... | 8,000 | 800,000 00 | | | |
| Nevada & Minden Ry..... | 4,500 | 450,000 00 | | | |
| Nevada & Min. Ry. of Kansas..... | 6,750 | 675,000 00 | | | |
| Le Roy & Caney Vy. A. L. RR..... | 3,660 | 366,000 00 | | | |
| Kan. City & Southw'n Ry..... | 2,160 | 216,000 00 | | | |
| Kan. C. & Southw. Ry. of Mo..... | 2,070 | 207,000 00 | | | |
| Kansas Southwestern Ry..... | 3,399.4 | 339,940 00 | | | |
| Iron Mountain RR. of Mem..... | 7 | 700 00 | | | |
| Gen. Br. Union Pac. RR. Co..... | 8,742 | 874,200 00 | | | |
| Atch., Col. & Pac. RR. Co..... | 9,303 | 930,300 00 | | | |
| Atch., Jewell Co. & W. RR. Co..... | 1,050 | 105,000 00 | | | |
| The Central Branch Ry. Co..... | 75,850 | 7,585,000 00 | | | |
| Sed., War. & Southw'n RR..... | 6,160 | 616,000 00 | | | |
| Winfield, Texas & Gulf Ry..... | 352 | 35,200 00 | | | |
| Kanopolis & Kan. Cent. Ry..... | 2,650 | 265,000 00 | | | |
| Capital Stock:—continued. | | | | | |
| The Kan. City Northw. RR. Co..... | 40,160 | \$4,016,000 00 | | | |
| Texas & Pacific Ry..... | 65,250 | 6,525,000 00 | | | |
| Den. & Rio Grande Ry., Com..... | 48,000 | 4,800,000 00 | | | |
| Den. & Rio Grande Ry., Pref..... | 33,000 | 3,300,000 00 | | | |
| Hotel Realty Co., St. Louis..... | 50 | 5,000 00 | | | |
| Rich Hill Coal Mining Co..... | 5,000 | 500,000 00 | | | |
| Western Coal & Mining Co..... | 10,000 | 1,000,000 00 | | | |
| Water & Car. Turn. & F'y Co..... | 998 | 99,800 00 | | | |
| Pacific Express Co..... | 24,000 | 2,400,000 00 | | | |
| American Refrig. Transit Co..... | 930 | 93,000 00 | | | |
| Kansas Central Elevator Co..... | 750 | 75,000 00 | | | |
| Coffeyville Elevator..... | 250 | 25,000 00 | | | |
| Kansas-Missouri Elev. Co..... | 3,000 | 300,000 00 | | | |
| Exp. & Mus. Hall Ass'n, St. Louis | 200 | 5,000 00 | | | |
| Omaha Fair & Speed Assoc'n..... | 200 | 3,500 00 | | | |
| Town Cos. on McPherson Br..... | 150 | 15,000 00 | | | |
| Mahoney Frog Foot Guard Co..... | 20 | 1,000 00 | | | |
| St. L. Light Artillery Arm Ass'n | 40 | ..... |  |  |  |
| Fort Scott Convention Hall..... | 1,540 | 150,000 00 | | | |
| Baring Cross Bridge Co..... | 8,530 | 85,300 00 | | | |
| Louisiana Purchase Exp'n Co..... | 100 | 10,000 00 | | | |
| So. Ill. & Missouri Bridge Co..... | 100 | 10,000 00 | | | |
| National Sugar Mfg. Co., Pref..... | 385 | 38,500 00 | | | |
| National Sugar Mfg. Co., Com..... | 1,000 | 100,000 00 | | | |
| Edgewater Connecting Line..... | 800 | 80,000 00 | | | |
| Edgewater Terminal RR..... | 1,278 | 127,800 00 | | | |
| Pacific RR. of Missouri..... | 2,500 | 250,000 00 | | | |
| Missouri Pacific Elevator Co..... | 500 | 5,000 00 | | | |
| Sugar City Townsite Co..... | 1,600 | 160,000 00 | | | |
| Springf. Southw. Ry. Co..... | 170 | 17,000 00 | | | |
| Mo. & Ill. Bridge & Belt RR..... | 300 | 30,000 00 | | | |
| Taylor City Belt Ry. Co..... | 207 | 20,700 00 | | | |
| St. Jo. & Cent. Branch Ry. Co..... | 180 | 18,000 00 | | | |
| Carthage & Western Ry. Co..... | 1,250 | 125,000 00 | | | |
| Pueblo Stock Yards Co..... | 225 | 225,000 00 | | | |
| First Mortgage Bonds: | | | | | |
| Kanopolis & Kan. Central Ry..... | 25 | 25,000 00 | | | |
| Leavenw. Union Dep. & RR. Co..... | 15 | 7,500 00 | | | |
| Pac. RR. of Mo., Carond't Br..... | 4 | 4,000 00 | | | |
| Pacific RR. of Missouri..... | 260 | 260,000 00 | | | |
| Southern Ill. & Mo. Bridge Co..... | 4 | 2,000 00 | | | |
| K. City N.W. RR. Co., Ser. "A"..... | 2,983 | 2,983,000 00 | | | |
| K. City N.W. RR. Co., Ser. "B"..... | 600 | 600,000 00 | | | |
| Concordia Coal Co..... | 57 | 28,500 00 | | | |
| National Sugar Mfg. Co..... | 1 | 1,000 00 | | | |
| Trust 5 p.c. Bonds: | | | | | |
| The Mo. Pac. Ry. Co..... | 57 | 28,500 00 | | | |
| Second Mortgage Bonds: | | | | | |
| National Sugar Mfg. Co..... | 1 Bond | 1,000,000 00 | | | |
| Ft. Scott, Wichita & W. Ry..... | 9 | 4,500 00 | | | |
| Fractional Scrip: | | | | | |
| K. City N.W. RR. Co., Ser. "A"..... | ..... | 217.28 | | | |
| K. City N.W. RR. Co., Ser. "B"..... | ..... | 500 00 | | | |
| The Mo. Pac. Ry. Co. Capital Stk..... | ..... | 15 00 | | | |
| St. L., I. M. & S. Ry. Cap Stk..... | ..... | 53.59 | | | |
| Southw. L. & Z. Wks., Rich Hill..... | ..... | 50,000 00 | | | |
| Certificates: | | | | | |
| Mo. Pac. Equip. Ass'n, Ser. "A"..... | 5 | 5,000 00 | | | |
| Nat. Sugar Mfg. Co., Gold Coup..... | ..... | 3,420 00 | | | |
| II. SECURITIES CONTROLLING | | | | | |
| UNION DEPOTS AND TERMINALS (total par, \$318,920; cost \$98,862.99): | | | | | |
| (A.) Union Depots: | | | | | |
| Capital Stock: | | | | | |
| St. Joseph Union Depot Co..... | 10 | 1,000 00 | | | |
| Kansas City Union Depot Co..... | 450 | 45,000 00 | | | |
| Atchison Union Depot Co..... | 9 | 9,000 00 | | | |
| Leavenworth Union Depot Co..... | 500 | 50,000 00 | | | |
| Pueblo Union Depot Co..... | 81.4 | 8,120 00 | | | |
| (B.) Terminals and Bridges: | | | | | |
| Capital Stock: | | | | | |
| Ter. RR. Assoc. of St. Louis..... | 2,058 | 205,800 00 | | | |
| Total Par Value of Foregoing..... | | | | | |
| Total Cost to Company..... | | | | | |

• Stocks and bonds owned

Consider Screening Pre-Moody:

Dun & Co. Ratings of Firms

1908

THE MERCANTILE AGENCY.

REFERENCE BOOK

(LAND KEY)

CONTAINING RATINGS OF

MERCHANTS, MANUFACTURERS AND TRADERS GENERALLY

THROUGHOUT THE

United States and Canada.

COMPLETE MAP AND SKELETON ROUTE MAP OF EACH STATE, TERRITORY AND PROVINCE.

AT THE END OF EACH STATE WILL BE FOUND

A LIST OF BANKS AND BANKERS, LOAN AND INVESTMENT COMPANIES, ALSO STATE COLLECTOR LAWS.

THE APPENDIX CONTAINS

Reports of Fire Insurance Companies and Long Distance Traveler Route Maps.

JANUARY, 1908—VOL. 129.

lc

R. G. DUN & CO.,

DUN BUILDING, 290 BROADWAY, NEW YORK.

KEY TO RATINGS.

Where only a credit rating appears, this line of credit designation applies.

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Where an italic <i>i</i> in parenthesis precedes a rating, it is an indication that one or more of the partners in the firm are liable as another or other firms, and the responsibility is in that sense divided, $\text{RACS} \div d \text{ B}+1$. | | | | |

Rating of Branch Houses should always be locked up at Headquarters also.

KEY TO THE CLASSIFICATION OF TRADES.

(TRADES ALPHABETICALLY ARRANGED, SEE BELOW.)

[illegible]

TRADES ALPHABETICALLY ARRANGED.

[illegible]

IP In several lines of trade but little use of the *Relevance* Shell is made for clerical purposes, and these, after consultation with subscribers, have been left unclassified.

NOTE.—The Figure and Letter which follow the Name of each Place indicate its Geographical Location, as shown by the corresponding Figures at the sides and Letters at the top and bottom of the respective Maps.

KEY TO RATINGS.

Where only a credit rating appears, this line of credit designation applies.

The absence of a listing, whether of capital or credit, indicates those whose business and investments render it difficult to rate satisfactorily. We therefore prefer, in justice to those, to give the detailed reports on record at our Office.

Rating of Branch Houses should always be looked up at Headquarters also.

Moody's 1909 Analyses & Ratings

Innovation

- Systematic analyses, not just manual (e.g., Poor's)
- Systematic presentation of a decade of data (e.g., Poor's)
- Ratings of bonds, not firms (e.g., Dun)
- Cost: Poor's RR Manual: \$12 (\$350) v. Moody's: \$5 (\$150).

From the preface

The book is not a statistical record, and in no sense replaces the “manuals” or other books of information. Its purpose is to *analyze* the different Railroads of the country in order that the user may know the *real value* of the various securities as measured by the equities and earning power back of them. The Analyses are all produced on a uniform plan, being based on the actual records of the different roads for a period of ten years in each case. The comparisons made are all worked out from figures contained in the annual reports of the different corporations, and the exhibit of each road as presented amounts to an analysis of the railroad reports for the entire period of ten years. Bankers and brokers frequently hire experts at fees ranging from \$100 to \$1,000 each to analyze particular reports for them. *This book furnishes equally complete analyses of practically all the railroads in the United States and Canada*, brought down to the latest dates, and treated in every case in an absolutely impartial and unbiased manner.

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OF THE PRINCIPLES OF ANALYSIS FOR DETERMINING RAILROAD SECURITY VALUES.

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The opening chapters explain how to analyze and interpret information on RRs.

THE ROCK ISLAND COMPANY.

NOTE: The analysis is based on official documents of the Company, including its annual reports of the past ten years.
For Definitions and Key to Ratings, see pages 19-21.

Origin: Formed in 1902 in New Jersey, acquiring stock of the Chicago, Rock Island & Pacific Railroad, which in turn owns over 94 per cent of stock of Chicago, Rock Island & Pacific Railway. The operations reported below are those of the latter company. Control of the St. Louis & San Francisco system was transferred to other interests in December, 1909.

Location: "Rock Island Lines" extend from Chicago to Denver, to St. Louis, Memphis, and many other points to the south; also north to St. Paul, Minneapolis, Sioux Falls, etc. Penetrates or crosses States of Illinois, Iowa, Minnesota, Kansas, Oklahoma, Colorado, Arkansas, and Texas. Population of these States in 1890, 12,311,903; in 1900, 13,573,697; in 1909 (partly est.), 20,802,030.

Management (March 1, 1910): **OFFICERS:** Roberts Walker, Pres.; Geo. T. Boggs, Vice-Pres., Secy. and Treas. **DIRECTORS:** D. G. Reid, Wm. H. Moore, Jas. H. Moore, R. R. Cable, J. J. Mitchell, G. T. Boggs, Ogden Mills, D. G. Boissevain, G. G. McMurtry, F. L. Hine, James Speyer, Robert Mather, Roberts Walker, James Campbell, J. F. Thompson. Annual Meeting, first Monday after second Tuesday in October. **MAIN OFFICE,** 71 Broadway, New York.

Classification of Freight Tonnage (Years Ending June 30).

| | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|-------------------------------|------|------|------|--------|--------|--------|--------|--------|--------|--------|
| Products of Agriculture | | | | 25.51% | 26.14% | 25.98% | 26.15% | 25.43% | 26.37% | 27.00% |
| Products of Animals | | | | 8.73 | 8.39 | 8.40 | 8.04 | 7.23 | 7.92 | 7.76 |
| Products of Mines | | | | 29.08 | 29.71 | 29.84 | 29.30 | 30.42 | 27.82 | 29.30 |
| Products of Forests | | | | 10.16 | 10.47 | 9.68 | 10.69 | 11.87 | 12.26 | 12.57 |
| Manufactures | | | | 14.22 | 10.53 | 11.44 | 16.61* | 17.55 | 17.92 | 18.14 |
| Merchandise and Miscel. | | | | 12.30 | 14.76 | 14.66 | 9.21* | 7.50 | 7.71 | 7.23 |

Total tonnage for 1909, 17,145,657 tons. * Sundry articles previously classified as Miscellaneous are in 1906 and thereafter classed as Manufactures.

TABLE A.—Physical Factors (Mileage, Equipment and Operations).

| YEARS ENDED. | Average Miles Operated. | Extra Main Track. | Loco-motives Owned. | Passenger Cars Owned. | Freight and Company Cars. | Fgt. to All Trffic. | Passenger Density. | Freight Density. | Average Freight Tr'n Lo (Tons). | Train Mile Earnings. | Average Rate per Passenger per Mile. (Cents). | Average Rate per Ton per Mile. (Cents). |
|---------------|-------------------------|-------------------|---------------------|-----------------------|---------------------------|---------------------|--------------------|------------------|---------------------------------|----------------------|---|---|
| 1900, Mar. 31 | 3,647 | 248 | 564 | 428 | 18,642 | 70% | 70,865 | 440,121 | 177 | \$1.46 | 2.06c. | .99c. |
| 1901 " | 3,819 | 249 | 572 | 439 | 19,795 | 71 | 77,494 | 468,470 | 181 | 1.51 | 2.08 | .99 |
| 1902 " | 3,900 | 282 | 631 | 473 | 21,432 | 69 | 95,465 | 471,571 | 172 | 1.58 | 2.11 | 1.04 |
| 1903, June 30 | 6,978 | 284 | 1,118 | 624 | 28,104 | 69 | 73,382 | 428,111 | 190 | 1.68 | 2.24 | 1.04 |
| 1904 " | 7,205 | 288 | 1,191 | 751 | 37,559 | 69 | 71,353 | 451,351 | 226 | 1.69 | 2.28 | .96 |
| 1905 " | 7,232 | 288 | 1,234 | 757 | 40,185 | 67 | 76,452 | 438,531 | 226 | 1.65 | 2.18 | .94 |
| 1906 " | 7,218 | 288 | 1,257 | 801 | 40,508 | 67 | 89,521 | 544,767 | 244 | 1.77 | 2.15 | .93 |
| 1907 " | 7,780 | 289 | 1,343 | 878 | 44,217 | 69 | 93,215 | 550,268 | 267 | 1.83 | 2.27 | .95 |
| 1908 " | 7,970 | 289 | 1,386 | 899 | 42,747 | 66 | 110,670 | 504,384 | 255 | 1.82 | 1.89 | .94 |
| 1909 " | 8,026 | 289 | 1,410 | 897 | 40,728 | 65 | 118,694 | 518,393 | 265 | 1.90 | 1.88 | .94 |
| 10-Year Av.. | 6,377 | 279 | 1,071 | 695 | 33,398 | 68% | 87,711 | 478,580 | 220 | \$1.68 | 2.11c. | .97c. |

Yard tracks and sidings, June 30, 1909, 1,869 miles.

Comparison on 10-Year Average with Four Properties in Similar Territory.

| | | | | | | | | | | | | |
|-----------------|-------|-----|-------|-------|--------|-----|--------|---------|-----|--------|--------|-------|
| A.T. & S.F. . . | 8,437 | 231 | 1,499 | 921 | 41,636 | 70% | 87,990 | 600,033 | 293 | \$2.19 | 2.17c. | .98c. |
| C. B. & Q. . . | 8,541 | 517 | 1,411 | 1,123 | 52,091 | 68 | 87,570 | 638,282 | 300 | 2.01 | 2.05 | .84 |
| C. M. & St. P | 6,887 | 428 | 995 | 972 | 41,660 | 73 | 67,326 | 620,959 | 277 | 1.81 | 2.21 | .86 |
| Mo. Pacific. | 5,865 | 53 | 854 | 620 | 39,294 | 71 | 58,654 | 603,902 | 271 | 1.80 | 2.12 | .81 |

Analysis: Since 1900 the Rock Island system has expanded from 3,647 miles to 8,026 miles. Its general growth in business is also reflected by the equipment figures which, particularly in freight equipment, show great expansion. But it is also true that in addition to its freight business, there has been a growth of a very healthy nature in its passenger traffic. The passenger density in the last two or three years has

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Moody provides detailed, systematic information on RRs.

- For a decade, if possible.
- Against a comparison group.

reached high totals, and the ten-year average is, at the present time, equal to that shown by the Atchison and the Burlington, and is much better than the figures of the St. Paul. In freight density there has not been so great a proportionate growth, but still the increase has been healthy, and the volume of business is now far heavier than in the earlier years. The road formerly reported a very light freight train load, but the figures in the past five years have compared well with those of other systems of similar type.

The Rock Island has not been able to report an average of train-mile earnings up to the figures shown by other standard properties in the section, and while during the past three years the average is much better than formerly, it is still far below results shown by the Burlington, St. Paul and Atchison. The passenger rates have tended to decline since 1907, but the freight rates have been fairly well maintained.

The Rock Island system depends to some extent on agricultural products, but in the past ten years the traffic has become more diversified than was formerly the case. Mining products now represent about 30 per cent of the total business and manufactures and miscellaneous articles about 25 per cent.

TABLE B.—Income Factors (Earnings and their Distribution, Per Mile of Road).

| YEARS ENDED. | Gross Earnings. | MAINTENANCE. | | Total Maintenance. | Cond. Transportation Gen. Exp. etc. | Net Earnings. | Total Net Income. | Fixed Charges. | Margin of Safety. | Surplus over Charges. | DISPOSAL OF SURPLUS. | | Balance. |
|-------------------|-----------------|--------------|-------------|--------------------|-------------------------------------|---------------|-------------------|----------------|-------------------|-----------------------|----------------------|---------------|----------|
| | | Way. | Equip-ment. | | | | | | | | For Dividends. | For Imp. Etc. | |
| 1900, Mar. 31 ... | \$6,211 | \$1,063 | \$645 | \$1,708 | \$2,152 | \$2,349 | \$2,541 | \$1,319 | 49% | \$1,222 | \$549 | ..... | \$673 |
| 1901 " " | 6,641 | 1,203 | 780 | 1,983 | 2,263 | 2,393 | 2,577 | 1,242 | 52 | 1,335 | 524 | ..... | 811 |
| 1902 " " | 7,278 | 1,192 | 745 | 1,937 | 2,506 | 2,834 | 3,077 | 1,225 | 60 | 1,852 | 576 | ..... | 1,276 |
| 1903, June 30 ... | 6,359 | 977 | 598 | 1,575 | 2,446 | 2,338 | 2,515 | 1,583 | 37 | 932 | 208 | ..... | 724 |
| 1904 " " | 6,241 | 950 | 711 | 1,661 | 2,749 | 1,831 | 2,016 | 1,723 | 44.5 | 293 | 204 | ..... | 89 |
| 1905 " " | 6,091 | 804 | 797 | 1,601 | 2,693 | 1,797 | 2,008 | 1,903 | 5 | 105 | 256 | ..... | 151* |
| 1906 " " | 7,098 | 1,011 | 923 | 1,934 | 2,924 | 2,240 | 2,383 | 1,971 | 17 | 392 | ..... | ..... | 392 |
| 1907 " " | 7,742 | 1,125 | 923 | 2,048 | 3,227 | 2,467 | 2,563 | 1,947 | 24 | 616 | ..... | ..... | 616 |
| 1908 " " | 7,338 | 1,044 | 939 | 1,983 | 3,327 | 2,027 | 2,067 | 1,941 | 6 | 126 | ..... | ..... | 126 |
| 1909 " " | 7,623 | 1,128 | 936 | 2,064 | 3,251 | 2,308 | 2,475 | 2,175 | 11 | 281 | ..... | ..... | 281 |
| 10-Year Average | \$6,812 | \$1,050 | \$800 | \$1,850 | \$2,754 | \$2,268 | \$2,420 | \$1,705 | 30% | \$715 | \$286 | ..... | \$429 |

* Deficit.

NOTE: The figures shown in the above comparative income account are those of the directly operated lines of the Chicago, Rock Island & Pacific Ry., known as the "Rock Island Lines." The fixed charges as shown cover the combined net obligations of the railway and the holding companies, including the latter's collateral bonds secured by St. Louis & San Francisco stock, which have since been retired.

Six months to Jan. 1, 1910: Increase in gross, 9%; increase in net, 14%.

Comparison on 10-Year Average with Four Properties of Similar Characteristics.

| | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|-----|---------|---------|-------|-------|
| A. T. & S. F. | \$3,380 | \$1,049 | \$1,160 | \$2,379 | \$2,830 | \$3,171 | \$3,278 | \$1,481 | 55% | \$1,797 | \$1,078 | \$420 | \$299 |
| C. B. & Q. | 7,656 | 1,237 | 1,142 | 2,378 | 2,728 | 2,549 | 2,569 | 1,214 | 53 | 1,355 | 946 | 61 | 348 |
| C. M. & St. P. | 7,360 | 945 | 744 | 1,689 | 2,808 | 2,863 | 2,940 | 1,140 | 61 | 1,800 | 1,086 | 195 | 517 |
| Mo. Pacific. | 6,835 | 972 | 988 | 1,960 | 3,049 | 2,162 | 2,598 | 1,738 | 33 | 860 | 416 | ..... | 444 |

Analysis: While the gross earnings per mile on the Rock Island have been fairly well maintained in recent years, they do not show the same ratio of growth as has been characteristic of many other Western railroad systems. The 1909 figures were nearly up to the high totals of 1907, and as this represented a very substantial increase over 1908, the net income per mile available for charges was much higher than last year. But the charges themselves also increased and therefore the margin of safety has not yet been returned to the high percentage shown in 1907. It is much better than in 1906, when only a very slight surplus was reported above the fixed charge requirements. No dividends have been paid on the Rock Island preferred stock since 1905 and from the above exhibit it would seem that none are now in sight; although more recent earnings and other changes have greatly strengthened the position of the stock issues since the close of the fiscal year. Probably for the year 1910 the total net income will be increased to comparatively high figures. Further than this, the recent financial changes which have resulted in cutting the St. Louis & San Francisco system free from the road will reduce the charges to a material extent and bring them down to the average of 1904. If no new obligations are created, therefore, it may be that in another year we will see a margin of 25 per cent as shown by this road once more, and amounts may be available for moderate disbursements on the preferred stock issue.

But previous to the present the Rock Island has not presented a showing which has been very hopeful for its stockholders. The volume of gross business has not expanded as it has done on properties like the Atchison, the Missouri, Kansas & Texas, and the Kansas City Southern, and while most of its territory has grown rapidly, other systems seem to have been getting an increasing proportion of the general business. It may be that with new alliances, such as are now planned, there will be a further increase in the traffic density, which will be of material aid to the road. If this density could be expanded to the extent of 25 per cent it would put the road on a much higher credit basis and give a brighter outlook from every point of view.

Moody provides data on income systematic analyses, too.

TABLE C.—Capitalization Factors (Security Obligations and Earning Power).

| Capitalization Per Mile of Road. | | | | | | | | | | Dividend Record. | | | | | |
|----------------------------------|---|-----|---|-----|--------------------------------------|----------------------------|---|-----------------------------|-------------------------------------|------------------------|-------|----------------------|-------|--|---|
| YEARS ENDED. | Stock Out- standing and per cent of Whole. | | Bonds Out- standing and per cent of Whole. | | Rentals Cap. at 5 per cent. | Total Gross Capital. | Owned by Co. as per Balance Sheet. | Net Capitali- zation. | Net Income on Net Capital. | PREFERRED DIVIDEND. | | COMMON DIVIDEND. | | Mar- gin of Safety on Pre- ferred. | Mar- gin of Safety on Com- mon. |
| | | | | | | | | | | Amt. per mile. | Rate. | Amt. per mile. | Rate. | | |
| 1900, Mar. 31 | \$13,710 | 43% | \$18,393 | 57% | \$4,674 | \$36,777 | \$1,924 | \$34,853 | 7.3% | ..... | ..... | \$549 | 4% | ..... | 55% |
| 1901 " | 13,092 | 43 | 17,828 | 57 | 4,671 | 35,591 | 1,760 | 33,831 | 7.6 | ..... | ..... | 524 | 4 | ..... | 60 |
| 1902 " | 15,376 | 46 | 18,239 | 54 | 4,655 | 38,270 | 1,712 | 36,558 | 8.4 | ..... | ..... | 576 | 4 | ..... | 68 |
| 1903, June 30 | 20,765 | 40 | 29,545 | 60 | 2,982 | 53,292 | 4,715 | 48,577 | 5.2 | \$208 | 3% | ..... | ..... | 78% | ..... |
| 1904 " | 19,849 | 38 | 32,419 | 62 | 2,918 | 55,186 | 81 | 55,105 | 3.7 | 204 | 3 | ..... | ..... | 30 | ..... |
| 1905 " | 19,835 | 36 | 35,532 | 64 | 2,987 | 58,374 | 2,919 | 55,455 | 3.6 | 256 | 4 | ..... | ..... | ..... | ..... |
| 1906 " | 19,852 | 35 | 36,938 | 65 | 2,767 | 59,557 | 6,595 | 52,962 | 4.5 | ..... | ..... | ..... | ..... | ..... | ..... |
| 1907 " | 18,436 | 34 | 36,716 | 66 | 3,076 | 58,228 | 6,594 | 51,634 | 5 | ..... | ..... | ..... | ..... | ..... | ..... |
| 1908 " | 17,424 | 32 | 36,685 | 68 | 3,877 | 57,986 | 7,610 | 50,376 | 4 | ..... | ..... | ..... | ..... | ..... | ..... |
| 1909 " | 17,341 | 32 | 36,033 | 68 | 3,817 | 57,191 | 7,168 | 50,023 | 4.9 | ..... | ..... | ..... | ..... | ..... | ..... |
| 10-Year Av. | \$17,568 | 37% | \$29,835 | 63% | \$3,642 | \$51,045 | \$4,108 | \$46,937 | 5.4% | \$67 | ..... | \$465 | ..... | ..... | ..... |

NOTE: In the above table the column "Stock Outstanding," etc., represents Rock Island Company preferred and common stock in hands of public; the bond column represents the total obligations outstanding of the Rock Island Company, the railroad and the railway, as well as that of directly operated controlled lines.

Since close of fiscal year bonded debt has been reduced by retirement of the St. Louis & San Francisco collateral bonds. Other obligations will, however, partially offset this reduction in 1910.

Comparison on 10-Year Average with Four Properties in Similar Territory.

| | | | | | | | | | | | | | | |
|----------------|----------|-----|----------|-------|----------|--------|----------|--------|-------|-------|-------|------|-------|-----|
| A. T. & S. F. | \$26,254 | 47% | \$29,748 | 53% | \$56,002 | \$771 | \$55,231 | 5.9% | \$647 | 5% | \$431 | 3.8% | 64% | 62% |
| C. B. & Q. | 12,718 | 40 | 19,376 | 60 | 32,094 | 3,875 | 28,219 | 9.2 | ..... | ..... | 946 | 7 | ..... | 30 |
| C. M. & St. P. | 17,524 | 49 | 18,062 | ..... | 35,596 | 2,859 | 32,737 | 9 | 478 | 7 | 609 | 6.7 | 73 | 53 |
| Mo. Pacific | 12,262 | 30 | 29,922 | 70 | \$647 | 42,001 | 13,723 | 28,278 | 9.2 | ..... | 416 | 3.2 | ..... | 52 |

Analysis: While the Rock Island system is not heavily capitalized, in view of the radical changes in the capital items which were brought about in 1902 and 1903, it still has a sufficiently large net capitalization per mile to make great demands on its earning capacity in order to show a good percentage of profit on this capital. It will be noted that in recent years this percentage has ranged below 5 per cent, and as the bond obligations of the system represent more than two-thirds of the total, this has not left a very wide margin to protect the different bond issues.

The recent change, whereby the collateral trust 5 per cent bonds, issued for the St. Louis & San Francisco stock, have been redeemed, will result this year in considerably reducing the capital items and fixed charges. If this reduction is not more than offset by other new issues, the credit of the company will at once be placed on a stronger basis.

Rock Island-Frisco Terminal Railway: Owns extensive terminal properties and about 30 miles of railway at St. Louis and East St. Louis.

Capital stock: \$500,000; par \$100. All owned by the C., R. I. & Pacific Ry. and the St. Louis & San Francisco Ry. and pledged under the mortgage of this company.

Bonded debt: \$3,000,000 first 5s; due Jan. 1, 1927; int. J. & J. First lien on all property owned. Guar., prin. and int., by endorsement, by C., R. I. & Pac. Ry. and St. Louis & San Fran. R. R. Co. Net Rating, **Aa.**

Peoria Railway Terminal Co.: Operates terminal properties between Peoria and Pekin, Ill., formerly owned by Peoria & Pekin Terminal Co.

Capital stock: \$1,000,000; par \$100. Owned equally by C., R. I. & Pac. Ry. and Chicago & Alton R. R.

Bonded debt: \$944,000 first 4s; due Jan. 1, 1937; int. J. & J. First lien on entire property. Callable after 1916 at 102½ and int. Guar., prin. and int., jointly and severally by C., R. I. & Pac. Ry. and Chicago & Alton R. R. Legal for Savings Banks in Maine and N. H. Net Rating, **Aa.**

\$280,000 second 5s; due Apr. 1, 2007; int. A. & O. Jointly guaranteed by above two companies. **A.**

(The Chicago, Rock Island & Pacific Railway also owns all the stock and bonds of the Rock Island, Arkansas & Louisiana R. R., operating about 446 miles in Arkansas and Louisiana.)

More data, comparisons, & analyses.

TABLE D.—Bond Record and Ratings (Based on 10-Year Results, Per Mile of Road).

NOTE.—The figures indicating available income, interest required per mile, etc., are all approximations based on the principle of ten-year averages, and are not the actual figures for any one year, the purpose being to show the position in the results of the decade. With this fact kept in view, the conservative basis of the ratings should be apparent. Many issues have a joint lien on available income, and the interest requirement is figured on the mileage basis of the system. See explanatory chapters.

| NAME OF ISSUE. | Interest Payable. | Maturity. | Lien on Miles. | Outstanding Per Mile. | Average Income Available. | Interest R'd per Mile of System. | Factor of Safety. | BASIS FOR RATING | | Net Rating. |
|---|-------------------|------------------------|---|-----------------------|---------------------------|----------------------------------|-------------------|------------------|-------------|-------------|
| | | | | | | | | Security. | Salubility. | |
| 1. Chic., R. I. & Pcf. Railway first 6s. | J&J | JI 1917 | (1st) 764 | \$16,360 | \$2,420 | \$93 | 96% | Very high | Very high | Aaa. |
| 2. Chic., R. I. & Pcf. Railway general 4s. | J&J | Ja 1988 | (1st) 2393 764 (coll) 93 | 19,000 | 2,327 | 308 | 87% | " " | " " | Aaa. |
| 3. Bur. C. R. & Nor. cons. first 5s. | A&O | Ap 1934 | (1st) 1000 (2d) 292 | 8,530 | | 68 | 87% | " " | " " | Aaa. |
| 4. Cedar R. I. Falls & N. W. first 5s. | A&O | O 1921 | (1st) 292 | 6,530 | | 12 | 87% | " " | " " | Aaa. |
| 5. Minn. & St. L. first 7s. | J&D | Je 1927 | (1st) 12 | 12,500 | | 2 | 87% | " " | " " | Aaa. |
| 6. Rock Ild. & Peoria con. first 6s. | J&J | JI 1925 | (1st) 113 | 4,000 | | 4 | 87% | " " | High | Aaa. |
| 7. Choctaw, Okla. & Gulf first 5s. | J&J | O 1919 | (1st) 378 | 14,550 | 2,019 | 32 | 87% | High | " | Aa. |
| 8. Choctaw & Memph. first 5s | J&J | Ja 1949 | (1st) 282 | 12,700 | | 22 | 87% | " | " | Aa. |
| 9. Little Rock Bridge first 6s | J&J | JI 1919 | (1st) Bdge | | | 3 | 87% | " | " | Aa. |
| 10. Choctaw, Okla. & Gulf consol. 5s. | M&N | My 1952 | (1st) 335 (2d) 660 | 5,440 | | 38 | 87% | " | " | Aa. |
| 11. Chic., R.I. & Pcf. Railway gold 4s, series F to P. | M&N | Seri'lly to My 1918 | (stk coll) | | | 67 | 87% | " | Good | A. |
| 12. Chic., R.I. & Pcf. Railway first and refunding 4s. | A&O | Ap 1934 | (1st coll.) 1148 (gen) 5649 (gtd.) | 11,000 | | 415 | 76% | Good | Very high | A. |
| 13. Chic. & R. I. Ele. first 5s. | A&O | O 1924 | | | 1,776 | 8 | 76% | " | Fair | A. |
| 14. Cons. Indiana Coal first s.f. 5s. | J&D | Je 1935 | (coal lands) | | | 18 | 76% | " | " | A. |
| 15. Keokuk & Des M. first 5s. | A&O | O 1923 | (1st) 162 | 17,000 | | 19 | 76% | " | Good | A. |
| 16. Chic., R.I. & Pcf. Railroad coll. trust 4s. | M&N | N 2002 | (stk. coll) | | 1,324 | 365 | 68% | " | Very high | Ba. |
| 17. Equip. oblig. See text. | Var. | Var. | | | | 58 | | " | " | A. |

For Key to Bond Ratings, see page 19.

REFERENCE NOTES ON BOND ISSUES.

1. First lien, about 764 miles, including main lines Chicago to Council Bluffs, Davenport to Knoxville, etc. Bonds underlie No. 2, below. Legal for S. B. in Maine, N. H., Conn.
2. Follows No. 1, and a first lien on about 2,393 miles additional; also by pledge of collateral, etc., and leasehold interest in Keokuk & Des Moines and Peoria & Bureau Valley R. Rs. Closed mortgage; underlie the refunding 4s of 1934. Legal for S. B. in Maine, N. H., and Conn.
3. First lien on about 1,000 miles of former Burlington, Cedar Rapids & Northern Ry., and second lien on 292 miles, following No. 4. Legal for S. B. in N. H.
4. First lien, 292 miles, Holland, Ia., to Worthington, Minn., and to Estherville, Ia. Underlie No. 3. Legal for S. B. in Maine and N. H.
5. First lien, 12 miles, Albert Lea to Iowa State line. This is part of an issue created by the Minn. & St. Louis R. R. of \$1,100,000, of which this \$150,000 have been assumed by the C. R. I. & Pcf. Ry., and upon their payment the mileage hereunder will become the property of the latter.
6. First lien, 113 miles, Rock Island to Peoria and branches. Underlie No. 12. Legal for S. B. in N. H.
7. First lien, about 378 miles, in Oklahoma and also on coal property. Underlie No. 10.
8. First lien, about 282 miles in Oklahoma and Arkansas. Underlie No. 10.
9. First lien on bridge over Arkansas River at Little Rock, Ark. Underlie No. 10.
10. First lien on 335 miles, and follow Nos. 7, 8 and 9. Issue is provided for by C. R. I. & Pcf. in refunding mtge. (No. 12).

Bond ratings

11. Secured by pledge of preferred and common stock of Choctaw, Oklahoma & Gulf R. R. In several series, maturing \$1,494,000 annually to May 1, 1918. Callable at 101½ and interest on 60 days' notice. Underlie No. 12.
12. First lien on about 1,148 miles, and on all property of the company subject to foregoing prior liens, for which full provision is made at or before maturity. Callable until April 1, 1911, at 105 and interest. Legal for S. B. in Me., N. H., and N. Y.
13. First lien on realty, docks and grain elevators at Chicago. Guar., prin. and int., by C. R. I. & Pef. Ry. Callable at par, and mature annually until 1924.
14. First lien on about 22,000 acres of coal lands in Ind., Ill., and Ia. Sinking fund, 5 cents per ton, draws bonds at 110 per cent if not purchasable. Of total issue of \$2,700,000, \$2,500,000 are guaranteed as to int., by C. R. I. & Pef. Ry.
15. First lien, 162 miles, Keokuk to Des Moines, Ia. Int. guar. by C. R. I. & Pef. Ry.
16. Secured by pledge of \$70,386,700 capital stock of C. R. I. & Pef. Railway.
17. In several series: Equipment Notes, of 1907, \$4,550,000 4½s, due \$325,000 semi-annually to Feb., 1917; Series B, \$380,000 6s, due semi-annually to Apr., 1913; Series C, \$5,035,000 4½s, due semi-annually to Oct., 1919.
- NOTE: In addition to the foregoing, the Chicago, Rock Island & Pacific Railway guarantees, jointly, by endorsement, with the St. Louis & San Francisco Railway, \$3,000,000 first mortgage 6s, due Jan., 1927, of the Rock Island-Frisco Terminal Co., and also the first and second mortgage bonds of the Peoria Railway Terminal Co., the latter being the successor of the Peoria & Pekin Terminal Co. See page 514.

TABLE E.—Stock Record and Ratings (Based on 10-Year Results, Per Mile of Road).

| NAME AND DETAILS OF ISSUE. | Rate and Date Dividends. | Amount Outstanding Per Mile. | Average Income Available Per Mile. | Dividend Required Per Mile of System. | Factor of Safety. | BASIS FOR RATING. | | Net Rating. |
|--|--------------------------|------------------------------|------------------------------------|---------------------------------------|-------------------|-------------------|-------------|-------------|
| | | | | | | Equity. | Salability. | |
| 1. Peoria & Bureau Valley R. R. stock..... Par \$100. Outstanding, \$1,500,000. | 8% F&A | ..... | \$901 | \$13 | ..... | High | High | Aa. |
| 2. Rock Island Company preferred stock..... Par \$100. Outstanding, \$54,000,000. | ..... | ..... | 888 | 270* | ..... | Fair | " | B. |
| 3. Rock Island Company common stock..... Par \$100. Outstanding, \$96,000,000. | ..... | ..... | 618 | ..... | ..... | ..... | " | C. |

For Key to Stock Ratings, see page 20.

*To Pay 4%.

REFERENCE NOTES ON STOCK ISSUES.

- Road leased in perpetuity to C. R. I. & Pef. Ry. at rental of \$125,000 per annum, equalling 8% on stock.
- Preference as to assets and non-cumulative dividends at 4 per cent to June 30, 1909, 5% to June 30, 1916, and 6% thereafter. Preferred stockholders are entitled to elect a majority of the board of directors. Last dividend paid Nov., 1908.
- Entitled to surplus earnings after provision for preferred dividends as above.

NOTE: Up to December, 1909, the Rock Island Company owned \$28,940,000 out of \$29,000,000 common stock of the St. Louis & San Francisco Railway, which was pledged under its collateral trust 5% mortgage of \$17,364,180. The latter was paid off at the redemption price of 102½% on March 1, 1910, and the St. Louis & San Francisco stock released. The latter stock was then sold for \$10,852,612, the remainder of the purchase price being provided for by the issue of \$7,500,000 new 6s, due Sept., 1915, which are still (April 1, 1910) held in the treasury of the Railroad Co. The sale as above has resulted in a net reduction in the funded debt of the system of about \$9,865,000 and a saving in charges of about \$493,000.

Trinity & Brazos Valley Railway: Operates about 421 miles, Cleburne to near Houston, Texas, with various branches. Road is jointly owned by the Rock Island Company and the Colorado & Southern Railway.

Capital Stock: \$600,000; par \$100. Practically all owned by the Colorado & Southern Railway and the Rock Island Co., the Rock Island's interest being subject to the Col. & So. mortgages.

Bonded debt: \$8,760,000 first 4s; due July 1, 1935. Entire issue pledged under Col. & So., refunding mtge., but the C. R. I. & Pef. Ry. is pledged to pay one-half the principal of the issue at maturity.

\$350,000 equipment trust 5s; due semi-annually to April, 1917. Guar., prin. and int. jointly, by Colorado & Southern & C. R. I. & Pef. Ry. companies. Net Rating, **A.**

White & Black River Valley Railway: Operates 62 miles, Brinkley to Jacksonport, Ark., and branches. Leased to Choctaw, Oklahoma & Gulf R. R. until 1980, at rental equalling interest on bonds.

Capital stock: \$500,000; par \$100. No dividends.

Bonded debt: \$600,000 first 5s; due June 1, 1980; int. J. & J. First lien on entire property. Int. guar. by Choc., Oklahoma & Gulf Ry. Net Rating, **Ba.**

Stock ratings, and
Moody even provides ...

THE ROCK ISLAND SYSTEM



Explanation: Total mileage of Chicago, Rock Island & Pacific Railway, and other controlled lines of the Rock Island system, June 30, 1909, 8,118 miles. This mileage does

not include the St. Louis & San Francisco Lines, formerly controlled, but now separated. For information as to lien of bond issues, etc., see pages 514, 515 and 516.

Moody's ratings and analyses

Fathomable and significant.

They offer:

1. regularized and logical data compilation/organization.
2. systematic analyses and summary rating of each security,
3. a lower price.

Perhaps this is a significant step up the quality ladder of a continuum of screening innovations.

“Modesty” of estimates and relevance

- One view of the paper:
 - It analyzes “one of the most important financial innovations in U.S. history”
 - Which had “modest” effects
 - Even an enormous innovation had a small effect.

“Modesty” of estimates and relevance

- Another view of the estimates:
 - It **precisely** identifies one in a sequence of screening innovations.
 - Even this one screening innovation had appreciable effects
 - The cumulative process of such screening innovations is essential for long-run prosperity.
- Another view of relevance for today
 - Perhaps, the lesson is less about fostering credit rating agencies in developing countries today.
 - Perhaps the lesson is more about stressing the centrality of understanding which underlying features of the U.S. have fostered continual improvements in screening technologies.

Bottomline

- This is excellent research that taught me a lot.
- I hope my comments might help highlight its contributions.