

This PDF is a selection from a published volume from the National Bureau of Economic

Research

Volume Title: Risk and Capital Adequacy in Commercial Banks

Volume Author/Editor: Sherman J. Maisel, editor

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-50281-3 (cloth); 0-226-50282-1 (paper)

Volume URL: <http://www.nber.org/books/mais81-1>

Conference Date:

Publication Date: 1981

Chapter Title: Contributors, Author Index, Subject Index

Chapter Author(s): Sherman J. Maisel

Chapter URL: <http://www.nber.org/chapters/c13536>

Chapter pages in book: (p. 425 - 436)

---

# Contributors

Roger Craine  
Department of Economics  
275 Barrows Hall  
University of California at Berkeley  
Berkeley, California 94720

Lawrence P. Golen  
P.O. Box 4412  
Berkeley, California 94704

Laurie Goodman  
Federal Reserve Bank of New York  
Nassau and Maiden Lane  
New York, New York 10045

Robert Jacobson  
Federal Reserve Bank of San  
Francisco  
400 Sansome Street  
San Francisco, California 94111

David Lane  
School of Business Administration  
and Economics  
California State University at  
Northridge  
Northridge, California 91330

Sherman Maisel  
School of Business Administration  
350 Barrows Hall  
University of California at Berkeley  
Berkeley, California 94720

J. Huston McCulloch  
Department of Economics  
Ohio State University  
Columbus, Ohio 43210

Jay Morrison  
Wells Fargo Bank  
464 California Street  
San Francisco, California 94104

Stephen Nadauld  
School of Management  
Brigham Young University  
Provo, Utah 84602

Phillip Perry  
School of Management  
State University of New York at  
Buffalo  
Buffalo, New York 14214

James Pierce  
Department of Economics  
275 Barrows Hall  
University of California at Berkeley  
Berkeley, California 94720

David Pyle  
School of Business Administration  
350 Barrows Hall  
University of California at Berkeley  
Berkeley, California 94720

Barr Rosenberg  
School of Business Administration  
350 Barrows Hall  
University of California at Berkeley  
Berkeley, California 94720

William Sharpe  
Graduate School of Business  
Stanford University  
Stanford, California 94305

---

# Author Index

- Altman, E. I., 151
- Barnett, R. E., 6, 36, 138, 154, 177
- Beaver, W., 151
- Benston, G. J., 146, 148
- Black, F., 54, 64, 122, 137
- Boquist, J. A., 213
- Box, G. E. P., 251
- Bradley, S., 345, 359
- Brick, J. R., 272, 273, 274
- Bulow, J. I., 141, 158, 160n
- Chinn, K., 230
- Cox, J. C., 64
- Craine, R. N., 33, 44, 49, 83
- Cramer, R., 251, 270
- Crane, D. B., 345, 359
- Curley, A. J., 320
- Dothan, U., 24
- Edwards, F. R., 5, 137, 144
- Fair, R. C., 298
- Fama, E., 225, 235, 290
- Federal Deposit Insurance Corporation  
*Annual Report*, 148, 155, 360
- Federal Financial Institutions Examination  
Council, 3
- Flannery, M. J., 25, 26, 144
- Gibson, W. E., 143
- Goldfeld, S. M., 298, 300
- Golen, L., 33, 54, 55, 57, 65, 77
- Goodman, L., 32, 118
- Graham, D. R., 148
- Granger, C. W. S., 251, 254, 277
- Grove, M. A., 33
- Guttentag, J. M., 25, 26, 144, 320
- Hakansson, N. H., 326
- Hempel, G. H., 288
- Herzig-Marx, C., 113
- Hester, D., 205
- Hicks, J. R., 33, 286
- Hildreth, G., 301, 303
- Hillmer, S. C., 254
- Hodges, S., 288
- Hoening, T., 50
- Horvitz, P., 157, 158
- Hsiao, C., 254
- Humphrey, D. B., 148
- Jacobson, R., 33, 44, 46, 49, 62, 77, 80, 84,  
165, 167
- Jaffee, D. M., 298, 300
- Jenkins, G. M., 251
- Kaiser, H. F., 349
- Kane, E. J., 171, 174, 305
- Kaufman, G., 142
- Keefe Bank Stock Manual*, 386
- Kessel, R. A., 230
- Lane, D., 33, 54, 55, 57, 65, 77
- Lanstein, R., 293
- Lintner, J., 21, 26
- Lu, J. Y., 301, 303

- Macaulay, F. R., 33, 286, 288, 293  
McCulloch, J. H., 24, 27, 33, 45, 53, 54, 55,  
57, 64, 77, 82, 85, 86, 101, 123, 214, 228,  
229, 231, 290, 293, 308, 323, 328, 349, 359  
Maisel, S. J., 33, 46, 62, 77, 80, 84, 167, 171  
Mandelbrot, B., 225  
Marathe, V., 407  
Markowitz, H. M., 21, 26  
Marshall, W. J., 288  
Martin, D., 149, 151  
Mayer, T., 6, 92, 114, 137, 138, 142, 143,  
174, 177, 223  
Mayne, L., 146, 148  
Meltzer, A. H., 143  
Merton, R., 5, 19, 21, 121, 122, 142, 225,  
241  
Messina, J., 230  
Miller, M. H., 43, 110, 137, 230  
Miller, R., 251, 270  
Modigliani, F., 43, 110, 275  
Morrison, J. B., 33, 52, 53, 54, 55, 65, 77,  
117, 165, 230, 289, 290, 324, 345  
Mossin, J., 21, 26  
  
Nadauld, S. D., 33, 53, 54, 55, 65, 77, 117,  
293, 362  
Nelson, C. R., 272, 290  
Newbold, P., 251, 277  
  
Orgler, Y. E., 62, 113, 149  
  
Perry, P. R., 32, 65, 165, 378  
Phillips, L., 354  
Pierce, D. A., 270  
Pierce, J. L., 33, 44, 49, 83  
Pippenger, J., 254  
Posner, R. A., 137  
Pyle, D. H., 33, 52, 53, 65, 77, 117, 165  
  
Quandt, R. E., 298  
  
Racette, G. A., 213  
Roll, R., 225, 235, 346, 354  
Rosenberg, B., 32, 65, 165, 373, 378, 407  
  
Ross, S. A., 64, 68, 111  
Rubenstein, M., 64  
Rubinstein, M. E., 305, 326  
  
Salomon Brothers, 358  
Samuelson, P. A., 33, 52, 272, 294  
Santomero, A. M., 114  
Sargent, T. J., 272  
Schlarbaum, G. G., 213  
Scholes, M., 54, 64, 122, 230  
Schwert, G. W., 272, 290  
Scott, J. H., 5, 144  
Scott, K. E., 6, 114, 137, 138, 142, 174, 177  
Sharpe, W. F., 21, 26, 32, 36, 38, 44, 59,  
112, 118, 223, 293  
Sherman, L. F., 144  
Shiller, R. J., 272, 275  
Shoven, J. B., 141, 158, 160n  
Sims, C. A., 254  
Spong, K., 50  
Stiglitz, J. E., 43, 110, 171  
  
Thompson, H. E., 272, 273, 274  
Tiao, G. C., 254  
  
United States Code, Title 12, 23, 148, 152,  
153, 154, 155  
  
Van Horne, J. J., 109, 110  
Vasicek, O. A., 289  
Vojta, G. J., 5  
  
Watson, R. D., 114  
Weaver, A. S., 113  
White, J. J., 146, 153n  
Williams, J., 24  
Wold, H., 273  
Wolkowitz, B., 62, 113, 149  
Wu, K.-K., 149  
  
Yawitz, J. W., 288  
  
Zellner, A., 205  
Zoellner, J., 205

---

# Subject Index

- ABC form, Federal Reserve, 150, 177
- Acceptances, and net earnings assets, 106
- Accord, Federal Reserve-Treasury, 230, 232
- Activities: breakdown, in capital adequacy measurement, 42-43; value of, 27-28
- Agressiveness, and risk, 403
- American Bank and Trust of Orangeburg, South Carolina, 159
- Amortized loans, price movements, 229-41
- Arbitrage: and leverage, 44, 104, 110, 111; and simplifying assumptions of risk models, 66, 67, 68
- Assets: and bank size, 72, 78, 168; depreciation, and interest rates, 170; descriptors for, 390-401; economic value, 37-38; First Pennsylvania Bank, 128, fixed, investment in, 113-14, 116; foreign, 4, 106-7; growth rate, descriptor for, 390; liquidation value, 156; loan losses as percentage, 88; mergers, value in, 156; net earnings, defined, 106; operating expenses as percentage, 87-88; revenue per dollar, descriptor for, 403; size, coefficient of, descriptor for, 390, 392, 395, 398, 399, 402; total, 106; total, ratio to long-term liabilities, descriptor for, 390; variations among banks, and interest rate risk, 78, 81-82. *See also* Capital/asset ratios
- Assets, return on: book values, and costs, 204-13; distributions, 24, 27-29; excess, 70-71; total, 213-17, 219-20; and value-preserving spreads, 200-201
- Autoregressive integrated moving average (ARIMA), 354, 355, 356-57, 365
- Autoregressive moving average (ARMA), 251; forecasts, 263-70; models, 256, 257-70; single-series models, 273; vector model, 274
- Balance sheet, current, and risk descriptors, 378
- Bank examinations, 92, 116, 138, 143, 173, 174, 175; and bank size, 168-69; and capital/asset ratios, 108; early warning systems, 150-51; efficacy of, 144-51; and insurance terms, 176; rating system, 146-47; and stable distributions of asset values, 228; and unexpected events, 26, 48-49, 145, 168-69; value of, 76. *See also* Regulation
- Bank failures, 3, 140, 141, 246; and capital adequacy, 236-37; Federal Reserve predictions, 151; and mergers, 155; and uninsured depositors, 36. *See also* Insolvency
- Bank holding companies, 3, 4, 107, 150
- Bank of the Commonwealth of Detroit, 159, 160
- Bank Operating Statistics* (Federal Reserve System), 221
- Bank runs, 6, 157, 169
- Bankruptcy: costs, 23, 66, 68, 110-11; delay in declaring, 22, 23, 152, 158-59, 169, 176. *See also* Deposit payoffs; Insolvency; Mergers

- Bank size: assets share and, 72, 78, 168; and capital/asset ratios, 3–4, 100, 108–9, 118; and debentures as capital, 105–6; and equity, 100–101; and examinations, 168–69; and foreign assets, 107; and fraud, 34, 58, 72, 102, 179–80; and insolvencies, 3, 140; and interest expense, 81; and liabilities, 80; and loan losses, 51, 87, 88, 92, 94–95, 96, 122–23; and maldiversification, 8, 167, 168; and operating expenses, 87–88, 89–91, 97, 100–101, 179; and portfolio variations, 78; and regulation, 168–69; and revenue/cost correlation, 207; risk descriptors for, 398, 402; and risk models, 71–72; and univariate models, 254
- Beta. *See* Market risk
- Black-Scholes option pricing model, 54, 122, 225–29
- Bonds: durations, 214; interest rate elasticity, 286–89; rates, in ARMA model, 275–76. *See also* United States Treasury securities
- Book/market ratios, 4, 58, 117–18; First Pennsylvania Bank, 124, 126, 133; risk descriptor for, 381.
- Borrowed money: economic value, 36–37; and liquidity, 171; and risk, 179; and risk-free rate changes, 77
- Borrowing costs, 68–69
- Box-Jenkins method of time-series analysis, 346–50
- Business loans, liquidity, 69
- Capital: beginning period, 43, 58–63; book, 8, 22, 35, 58, 115–16, 165–66, 402; defined, 105–6, 187; and division of losses, 224–25; economic, 8, 21, 22, 24, 35–36, 43, 58, 115–16; elasticity, 52–53, 285, 294, 304–14; expected end-of-period, 21, 22, 24, 44, 46–47, 49–52, 107, 163–66; and FDIC liability, value of, 190–96; First Pennsylvania Bank, 9, 11–12, 130, 133–34; growth rate, 107; and income effects, 218–19; liquidating value, 39; market value, 4, 38–39, 43, 58–63, 116–20, 166, 180, 285, 312, 342, 368; and operating losses, 97–100; present value, 368–70, 371, 402; probability distributions around expected, 24, 44–46, 47–49, 166–67; return on, descriptor for, 402; and value-preserving spreads, 197, 200; in variable-rate insurance system, estimate of, 180–81; and wealth effects, 218. *See also* Capital, adequacy of; Capital/asset ratios
- Capital, adequacy of: criteria for, 223–24; defined, 2, 19, 20, 163–64, 187; fair insurance criterion, 238–42; models, 63–71; probability criterion, 236–38; and regulation, 39–40, 60–62, 104, 109, 111–12, 137–38, 143–44, 145, 146, 149–50; steps in measuring, 41, 42–46
- Capital asset pricing model (CAPM), 26–27, 30, 31, 353
- Capital/asset ratios, 45, 105–23, 187, 249; and bank size, 3–4, 100, 108–9, 118; and fair value of insurance, 223, 236–42; fall in, 3–4, 104, 108; First Pennsylvania Bank, 9, 131; and interest rate changes, 204, 310–14; minimum, 182; and over-capitalization, 113–15; prototype banks, 120–23; and variable premiums, 177, 178, 180–82. *See also* Leverage
- Capital costs, and systematic risk, 403
- Capital notes, 105, 112–13
- Cash flows: certain equivalent, 26, 28–29, 117, 330–31; expected, 7, 21, 26, 317, 318–22; and income effects, 217–18; and interest rate movements, 76, 166; to liabilities, ratio of, descriptor for, 395; multiperiod uncertainty model, 315–32; simulation models, 296–304; and wealth effects, 217
- Cease and desist orders, 97, 145, 147–48
- Center for Research in Security Prices (CRSP), 328
- Central bank, 142
- Certainty equivalents, 26, 28–29, 117, 330–31
- Certificates of deposit (CDs), 37, 190n
- Characteristic exponents, 225–26
- Charter, bank, economic value of, 38
- Chow test, 372
- Claims agents, 153
- Commercial loans: commitments, models of, 296, 297–300; duration, 214; losses, 51, 94; returns, 27, 28, 206, 209, 210; and transaction costs, 70; volume, models of, 396, 300–302
- Commercial paper, rates, 76, 282
- Competition: and regulation, 67, 137, 142, 247; in risk models, 66, 67
- Completeness of financial market, 192
- Comptroller of the Currency, 138, 145, 147n, 175, and bank examinations, 145,

- 146, 168; capital adequacy standards, 149; insolvency declarations, 23, 257; and mergers, 155; and termination orders, 148
- COMPUSTAT data, 66, 90, 368, 401
- Computers, 149, 150–51; and cash flow modeling, 330–37
- Conditional claims, theory of, 64
- Conservators, in liquidation proceedings, 153
- Consolidations. *See* Mergers
- Construction loans, 70
- Consumer loans: capital value changes, 215; descriptor for, 393; discount rates, 7; durations, 214; losses, 51, 94, 166–67; returns, 27–28, 204, 206, 209, 210, 211, 216; transaction costs, 70
- Contingent claims, theory of, 64
- Corporate income tax, 111
- Costs of assets and liabilities, book values, 204–13. *See also* Assets; Liabilities
- Courts, and bankruptcy decisions, 23
- Covariance matrixes, 29–30, 44–45, 76
- Credit, line, of, as intangible asset, 37–38
- Creditors, secured, and liquidation, 154
- Credit risk. *See* Loan losses
- Cubic-spline term structure term fitting program, 229
- Debentures, 105–6, 112–13
- Default risk, 19, 246. *See also* Loan losses
- Demand deposits: and bank size, 100; cost of, 218, 219, 220; descriptor, 393, 395; and expected net worth, 51, 180; future, simulation models of, 296, 304; and interest rate risk, 78, 80; and liquidation, 154, and market rates, 77; as one-period deposits, 190n; and operating risk, 179; returns, 206, 209, 211, 212; riskiness of, 179; value of, 62, 72, 225–29; volume, 304
- Deposit insurance, 2–3, 138, 154, 173–82, 188–90; and capital, 190–96; and economic value, 36–37; fixed rates, 5–6, 59, 101, 112, 138, 143; fund, 174–75; and information, 144; and insolvency, 23; in option pricing theory, 64; private, 142, 173–74; and risk changes, 196–201; termination of, 148; terms, 176. *See also* Deposit payoffs; Fair insurance premiums; Federal Deposit Insurance Corporation (FDIC); Uninsured depositors
- Depository Institutions Deregulation Act of 1980, 1, 3, 80
- Deposit payoffs, 151, 152, 153–54, 155, 159, 160
- Diffusion process, 54
- Discount function, estimation of, 308; and risk-free term structure, 323, 331–32
- Discount instruments, price movements, 229
- Discount rates, 7, 8, 21, 26–29, 45, 47, 117; and interest elasticity, 52; and wealth effects, 217
- Disequilibrium model, 297–98
- Disintermediation, 78, 81, 179, 217
- Distribution functions. *See* Probability distributions
- Diversifiable risk. *See* Nonmarket risk
- Diversification: and bank size, 168; and loan losses, 100; need for, 2, 32–33, 34–35, 164; and nonmarket risk, 31. *See also* Nondiversification
- Dividend cuts, indicator for previous, 397–98
- Dividend yield, risk descriptor for, 390
- Divisions for Special Projects and Multinational Banking, 145
- Duration, 11; defined, 52; First Pennsylvania Bank portfolio, 128–30; and interest rate elasticity, 52–53, 286, 294–95; and interest rate risk, 33, 52–54, 76, 80, 81; loan, 170; and market value of assets, 213–14. *See also* Maturities
- Durbin-Watson statistic, 321–22
- Early warning systems, 14, 150–51
- Earnings: covariability with economywide earnings, descriptor for, 395; historical variability of, as descriptor, 390, 395; net, on equity, 107; reported, and present value of net worth, 368. *See also* Capital
- Economic rents, value of, 38
- Effective tax rate, descriptor for, 395
- Efficient market model, 271–83
- Environmental variables, defined, 342
- Equity, shareholders', descriptor for, 393
- Equity capitalization, total, as risk descriptor, 390
- Execution price, 225
- Extramarket covariance, 30, 373, 374
- Fair insurance premiums, 163, 176–82, 223–48, 341–65; ARIMA-based estimates, 351–54, 356–57, 360, 362, 365; and cap-



- Fair insurance premiums (*cont.*)  
 ital adequacy, 223–24, 238–42; capital estimate for, 180–81; commercial bank mortgage portfolios, 362; contingent claims theory, 64; government assets portfolio, 343–57; and interest rates, 86; and liability management, 245; mixed portfolios, 363–64; municipal assets portfolios, 357–62; noise-based estimates, 354–57; prototype banks, 120, 122, 123; and retrospective experience dating, 181–82; risk classes for, 177, 178–80, 181; value of, calculating, 225–29
- Farmers Bank of Delaware, 159
- Farm loans: capital value changes, 215; return rates, 206, 209, 210, 216, 217; transaction costs, 70
- Federal Deposit Insurance Act, 124
- Federal Deposit Insurance Corporation (FDIC), 3, 6, 21, 23, 25–26, 36, 37, 38, 39, 59, 60, 61, 68, 100, 101, 105, 112, 113, 114, 115, 138, 143, 188, 221; capital adequacy standards, 149–50; expenses, 174–75; and First Pennsylvania Bank, 8–12, 124, 134, 135; and insolvencies, 151–60; and liquidity, 171, 172; problem banks list, 147; regulations, 39, 138, 140, 145–46; suggested changes, 173–76; termination orders, 148; and troubled banks, 147–48, 150, 190. *See also* Deposit Insurance; Regulation
- Federal Deposit Insurance Corporation *Reports of Condition and Income*, 207
- Federal funds: book returns, 209, 210, 211; borrowed, descriptor for, 393, 395, 402; capital value changes, 215; total returns, 216
- Federal Home Loan Bank Board, 315
- Federal Reserve Bank of New York, 151
- Federal Reserve System, 134, 138, 171, 172, 175, 190, 232, 250, 270; ABC form, 150, 177; Bank Operation Statistics, 221; early warning system, 151; examinations, 145, 146, 147n, 149, 150, 151; *Functional Cost Analysis*, 208; and insolvent banks, 148, 157–59; termination orders, 148
- Federal Savings and Loan Insurance Corporation, 188
- Financial Institutions Regulatory and Interest Rate Control Act of 1978, 145
- Financial Institutions Supervisory Act of 1966, 145
- Financial loans: capital value changes, 215; return rates, 206, 209, 210, 216
- Financial ratios, risk descriptors for, 398
- First Pennsylvania Bank, 3, 8–12, 15, 75, 121, 123–35, 140, 159, 166; book/market ratio, 124, 126, 133; capital/asset ratio, 9, 131; duration of portfolio, 128–30; earnings decline, 10, 125–26; interest rate risk, 11, 81, 126–27, 132; loan losses, 10, 124, 128, 131–32, 133; net worth, 9, 11–12, 130, 133–34; price/earnings ratio, 125–26, 132–33
- Fixed charges, descriptor for, 395–97
- Floating-rate loans, 313
- Foreign assets, 4, 106–7
- Foreign deposits, coefficient of, descriptor for, 392, 395
- Foreign loans, transaction costs, 70
- Form for Analysing Bank Capital (ABC), 150, 177
- Franklin National Bank, 3, 97, 138, 154, 155, 172, 373–74
- Fraud, 34, 48, 56, 58, 75, 92, 123, 139, 141, 142, 153; and bank size, 58, 72, 102, 167, 169, 179; penalties for, in risk-rating system, 179–80
- Frequency distributions of intermediary's market value, 342
- Functional cost analysis (FCA), 221
- Fundamental risk descriptors, 65–66, 367–407; listed, 379–81; prediction rules, 374–76; principles in constructing, 378–86; regressions, 387–401; summary statistics, 382–83
- Gold Clause Joint Resolution, 246
- Goldfelt-Quandt test, 205
- Government securities. *See* United States Treasury securities
- Hedging, 44, 66, 68
- Historical measures of risk, 372, 378, 402
- Historical variability of income statement items, as predictor, 378
- Holding period return, 28–29
- Income: economic (total return), defined, 7, 25; gross interest, 82; net interest, 87–88; operating, 88; *See also* Capital Income effects, 204, 217–19, 249; defined, 7; and net worth rate elasticity, 311
- Income statement risk predictors, 378
- Independent risk, 30, 373–74
- Indexed loans, 245–46
- Industrial loans: capital value changes, 215; losses, 51; returns, 206, 209, 210, 216, 217

- Inflation, 140, 142, 245–46; in interest rate risk vector model, 275–82
- Information, and market valuation of bank capital, 60–61; and stockholders, 144
- Information costs, 19, 20, 68–69; bank adjustment to changes in, 203–4; and leverage, 43, 111–12; and need for regulation, 141, 142
- Insider abuse, 34, 48, 57–58, 72, 92, 102, 139, 144; penalties for, in risk-rating system, 179–80
- Insolvency: amounts lost, 36; and bank size, 3; causes, 2; costs, 20, 23; defined, 21; options for regulators, 151–53; risk model, 23–24. *See also* Bankruptcy; Deposit payoffs; Mergers
- Instability, cost of, 141–42
- Intangible assets, 37–38, 46, 63; economic value, 115, 118, 180; and insolvency, 21–22; in liquidation, 39, 156
- Interest rate ceilings, 79, 80, 115, 139, 203
- Interest rate elasticity, 52–53, 285; bonds, 286–88; and cash flows simulation model, 296–304; empirical model, 289–96; net worth/net elasticity model, 304–14
- Interest rate risk, 2, 8, 33–34, 45, 52–55, 65, 76–86, 164; and capital adequacy, 223; debentures, 105; deposits, and insurer's liability, 196–201; First Pennsylvania Bank, 11, 126–27; liquidity as, 170; and multiperiod uncertainty model of cash flows, 315; multivariate analysis, 271; prototype banks, 120–22; time-series analysis, 249; in variable-rate insurance, 178
- Interest rates: and anticipated earnings, 50; assets, 81–82; and book returns, 206–13; and cash flows, 316–17, 326–27; commercial paper, 275–76, 282; and economic capital, 22; in efficient markets hypothesis, 271–75; forward, 52, 271, 272, 286–89, 295, 308, 345, 349; liabilities, 78–81; and loan yield, 302–4; market, 77, 79–81, 82–86, 318, 321–22; mortgage, 317, 318, 321–22, 326–27; negotiable certificates of deposit (NCDs), 304; prime, 302–3; risk-free, 26–29, 77, 316–17, 323–25; shocks, 280–81; spot, 52, 272, 273, 286–89, 295, 308, 345, 349; and total returns, 213–19; volatilities, 235–36. *See also* Term structures
- Investment: expenses, 208; return on common stock, as descriptor, 368–69
- Lender of last resort, 171–72
- Leverage: and capital/asset ratio, 104; efficiency of, 43–44; MM theory, 109, 110–115; risk descriptors, 390, 402–3; traditional theory, 109–10. *See also* Capital/asset ratios
- Liabilities: economic value, 36–37, 115; and fair insurance values, 238–45; ratios, descriptors for, 402–3; return on book values, and costs, 204–13; senior, market value of, 368, 402; total returns, 219; variations among banks, 78–81
- Liability, insurers: and capital adequacy, 190–96; and risk changes, 196–200; value of, 188–90. *See also* Deposit insurance
- Liability/asset ratios, 225
- Liability management, 171, 245
- Liquidation: capital value at, 22, 39; costs, 69–70, 170, 176; in deposit payoff, 153–54; and interest rate loss, 170
- Liquidity, 3; descriptor for, 398; and insolvency, 157–59; and interest rate risk, 169–70; and transaction costs, 170–71
- Liquidity premiums, 308, 328
- Loan losses, 33–34, 164, 271; and bank size, 51, 87, 88, 92, 94–95, 96, 122–23; and examinations, 149; and expected net worth, 50–51, 93; First Pennsylvania Bank, 10, 124, 128, 131–32, 133; and indexing, 246; probability distributions around expected values, 45, 47, 56, 57, 88–89, 92–102, 166–67; prototype banks, 120–21, 123; ratio to net earnings assets, 93–94; skewed distribution, 94–95; and total poor performance losses, 97–100. *See also* Monetary assistance to troubled banks
- Loans: amortized, 229; book returns, 209, 210, 211, 212–13; capital value changes, 215; commitments, 296, 297–300; FDIC member banks, 171–72; First Pennsylvania Bank portfolio, 128; increased share of assets, 212–13; and information costs, 68; and liquidity risk, 170; market value, 37; offsets, 154; total returns, 216, 217; and transaction costs, 69–70; to troubled banks, 159–60; variable-rate, 128, 245–46; volume, 296, 300–302; yield, and prime rate, 302–3
- Locked-in effect, 170
- Long-term debt to total assets, ratio of, 402
- Macroeconomic variables in portfolio changes, 250, 254–55, 257–62; simulation models, 342–43

- Standard scales, 225, 227–28
- State bonds: capital value changes, 215; durations, 214; total returns, 216
- State of the world, defined, 191
- Stock: common, proportional change in value of, 368–69, 371; market price change, as descriptor, 378; market value of bank, 58, 59–60; returns, multiple-factor model, 373–74; returns, single-factor model, 372–74. *See also* Securities
- Stockholders: and bank regulation, 144, 176; and bankruptcy delay, 158, 169; and liquidation, 154, 156, 169, 176; and monetary assistance, 160; and risk 39, 112
- Symmetric Paretian stable class of distributions, 225–28, 350
- Systematic risk. *See* Market risk
- Taxation: costs, in risk models, 66, 67–68; effective rate, descriptor for, 395; and leverage, 43, 44, 111, 113; municipal assets, 358
- Tax-exempt bonds, descriptor for, 393, 395, 403
- Tax expenditures, and leverage, 114
- Termination of insurance, 148
- Termination rates, mortgage, 319–21
- Term structures, 52, 76, 83–84; government securities, 349–57; municipal, 357–62; risk-free, 317, 323–25, 341; simulation, 343–49. *See also* Fair insurance premiums; Interest rates
- Time and savings deposits: costs, 218, 219, 220; descriptors, 393; as intangible capital, 180; and market rates, 77, 115; returns, 206, 209, 210, 211; riskiness, 78, 80, 179; value, 62, 72, 180
- Total income, defined, 25
- Total risk, 31; determining, 45, 63
- Trading account, descriptor for, 393
- Transaction costs, 8, 19, 69–70, 111; bank adjustment to changes in, 203–4; and liquidity, 170–71
- Transfer function analysis, 251–54; feedback in, 254; forecasts, 263–70; models, 256, 261–62, 268; variables, 254–56
- Trends, and risk prediction, 378
- Uncertainty adjustment term, 317–18, 325–30
- Uninsured depositors: claims on deposits, 36–37, 156–57; and FDIC liability, 189–90; and insolvencies, 6, 23, 169
- United States Bank of San Diego, 34, 155
- United States National Bank, 97, 138
- United States Treasury securities, 82–84, 121; book returns, 209, 210, 211, 212; capital value changes, 215; durations, 214; in insurance premium simulations, 344, 351–52; as macroeconomic variable, 263; and mortgage rates, 321–22, 323, 327; total returns, 216, 217, 220
- Unity Bank and Trust of Boston, 159
- Univariate models of bank portfolios. *See* Autoregressive moving average (ARMA)
- Unsafe and unsound practices situation, 148
- Value of an activity, defined, 27
- Value-preserving spreads, 38; defined, 196–97; and net worth, 197–200; and return on assets, 200–201
- Variable-rate insurance premiums. *See* Fair insurance premiums
- Variable-rate loans, 128, 245–46
- Vector model of interest rate risk, 274–83
- Volatilities, portfolio, 164–65. *See also* Interest rates; Market risk; Term structures
- Wealth effects, 204, 217, 228, 249; defined, 7; and net worth interest rate elasticity, 311, 314
- Windsorizing, 385
- Yield: current: 398; negligible, 398