

Index

A

- ABO. *see* accumulated benefit obligation
- absolute benchmarks, 6:136
- absolute contribution to total risk (ACTR), 3:267–268
- absolute priority rule, 5:102
- absolute return benchmarks, 3:468
- absolute-return vehicles, 5:62
- ABSs. *see* asset-backed securities
- academic designations, 1:176
- ACCF. *see* American Council for Capital Formation
- account(s), 2:245–250
- after-tax asset allocation, 2:247–248
 - audits of, 1:257–258
 - with beneficial ownership, 1:158
 - defined, 6:122
 - errors in, 1:208
 - family, 1:80, 158, 160–161
 - historical beta relative to, 6:142
 - non-taxable, 2:390
 - in performance calculations, 1:100
 - retirement
 - Monte Carlo simulation for, 3:250–252
 - taxation of, 3:341
 - tax-deferred, 2:232
 - selecting, 2:248–250
 - taxable, 2:246, 390
 - tax-advantaged savings, 2:245–246
 - tax-deferred, 2:246
 - and after-tax asset allocation, 2:247–248
 - asset location for, 2:251–254
 - financial capital in, 2:390
 - and investment risk, 2:250
 - rebalancing to, 3:345–346
 - retirement, 2:232
 - selecting tax exempt accounts vs., 2:248–250
 - tax-deferred accounts, 2:246
 - tax-exempt, 2:246–247
 - and after-tax asset allocation, 2:247–248
 - asset location for, 2:251–254
 - rebalancing to, 3:345
 - selecting TDAs vs., 2:248–250
 - tax-exempt accounts, 2:246–247
 - tax-sheltered savings accounts, 2:181
 - temporary new, 6:243, 292
- accountable benchmarks, 3:465n.4
- account information, regular statements of, 1:77
- accounting
- accrual, 6:221, 222, 287
 - FIFO and LIFO tax lot, 2:258
 - neoclassical approach to growth, 3:126–127, 129–130
 - settlement-date, 6:221, 291
 - “shadow,” 6:269n.46
 - trade date, 6:221, 222, 292
- accounting defeasance, 4:64–65
- accounting risk, 5:148–149
- account reviews
- disclosure of, 1:257–258
 - firm policies on, 1:77
 - regular, 1:94
 - systematic, 1:86
- accrual accounting, 6:221, 222, 287
- accrual equivalent returns, 2:243–245
- accrual equivalent tax rates, 2:244–245
- accrual taxes, on interest and dividends, 2:233–234
- accrued defined benefits, 2:387
- accumulated benefit obligation (ABO), 2:465; 4:79–81
- accumulated service, 2:465
- accumulation. *see also* after-tax accumulations and returns
- future long term, 2:242–243
 - of tax-exempt investment accounts, 2:246–247
 - using long- vs. short-term capital gains tax rate, 2:258–260
- accumulation phase of life (accumulation stage), 2:163–164
- actions
- disciplinary, 1:256
 - investment (*see also* Investment Analysis, Recommendations, and Actions [Standard of Professional Conduct V])
 - in AMC, 1:242, 245–248
 - fair dealing in, 1:83–84
 - firm policies on, 1:77
 - impact of, 1:12–13
 - unethical, 1:29
 - personal, 1:55
- Active Accumulators, 2:113–114, 116
- active currency management
- carry trade in, 3:402–404
 - and currency risk, 3:393–394
 - economic fundamentals in, 3:399–400
 - example, 3:407–409
 - technical analysis in, 3:401–402
 - volatility trading in, 3:404–409
- active investing
- in equities, 4:258–259, 276–302
 - and equity styles, 4:276–296
 - long-short investing, 4:297–302
 - sell disciplines, 4:302
 - socially responsible investing, 4:296–297
 - trading frequency, 4:302
- semiactive equity investing, 4:257–258, 303–305
- derivatives- vs. stock-based, 4:303, 305
 - and Fundamental Law of Active Management, 4:304
- strategies for, 3:466
- active investors
- in Barnewall two-way model, 2:109
 - in behavioral alpha process, 2:111–112
 - successful, 6:83–84
 - trading behavior of, 2:254
- active-lives portion of pension liability, 2:465, 469, 471–472
- active management
- of asset allocations, 3:217–219
 - of asset class weights, 3:216–217
 - benchmarks for, 3:464, 465
 - currency
 - carry trade in, 3:402–404
 - and currency risk, 3:393–394
 - economic fundamentals in, 3:399–400
 - example, 3:407–409
 - technical analysis in, 3:401–402
 - volatility trading in, 3:404–409
 - defined, 4:93, 257
 - of endowment investments, 2:496
 - of equity investments, 4:257–258
 - Fundamental Law of Active Management, 4:304
 - with index-tracking strategies, 2:355
 - and macro attribution, 6:153–154
 - returns due to, 6:134–135
 - semiactive, 4:257–258
 - and semi-strong-form EMH, 2:31–32
 - yield curve strategies (*see* yield curve strategies)
- active managers
- portfolio monitoring by, 6:82–84
 - selecting, 5:10–11
 - successful, 6:83–84
- active positions, benchmark, 6:143
- active return(s)
- and equity portfolio management approach, 4:258
 - and information ratio, 6:170–171
 - relative to one-factor model, 6:156
 - and total return mandates, 4:15–16
- active risk. *see also* tracking error and information ratio, 6:171
- and portfolio manager allocation, 4:307–308
 - and total return mandates, 4:15–16
 - and tracking risk, 4:258
 - true, 4:311–312
 - and volatility as risk metric, 5:152
- active risk budgeting, 3:221
- active trading, tax drag and, 2:254, 258
- ACTR. *see* absolute contribution to total risk
- actual cost value policy, 2:419
- actual extreme events, scenario analysis with, 5:172
- actuaries, 2:409
- adaptive markets hypothesis (AMH), 2:41
- Additional Compensation Arrangements [Standard IV(B)], 1:116–117
- application of the standard, 1:116–117
 - compliance procedures, 1:116
 - guidance, 1:116
 - text of, 1:17, 116

- adequate compliance procedures, 1:119–121
- adjustment bias. *see* anchoring and adjustment bias
- ADLs. *see* asset-driven liabilities
- administrative fees, 6:257–258, 287
- ad valorem fees, 4:315, 321–322
- advanced life deferred annuities (ALDAs), 2:426
- Adventurer (BB&K classification), 2:110
- adverse selection risk, 2:409; 6:19
- advertise-to-draw-liquidity trading focus, 6:39, 40
- advertising
 - and availability bias, 2:68
 - GIPS guidelines for (*see* GIPS Advertising Guidelines)
- advice. *see* financial advice
- adviser-client relations, 2:117–120
 - client expectations, 2:118
 - consistency of approach, 2:118
 - and estate planning, 2:272
 - financial goals, 2:118
 - limitations of risk tolerance questionnaires, 2:119–120
 - mutual benefits, 2:119
- advisers, selecting, 1:129
- after-tax accumulations and returns, 2:232–245
 - accrual equivalent returns, 2:243–245
 - accrual equivalent tax rates, 2:244–245
 - blended tax environments, 2:239–243
 - after tax returns, 2:241
 - future long term accumulation, 2:242–243
 - for investor types, 2:254–255
 - simple tax environments, 2:232–239
 - accrual taxes on interest and dividends, 2:233–234
 - cost basis, 2:237–238
 - deferred capital gains, 2:234–237
 - returns-based taxes, 2:232–237
 - wealth-based taxes, 2:238–239
 - and tax-exempt accounts vs. TDAs, 2:248–250
- after-tax asset allocation
 - in estate planning, 2:292–293
 - and investment accounts, 2:247–248
- after-tax liquidation value, 2:326
- after-tax mean–variance optimization, 2:260
- after-tax portfolio optimization, 3:341–344
- after-tax returns, 2:241; 6:280–283
- after-tax wealth, 2:225–226
- AG. *see* Aktiengesellschaft
- age, workforce, 2:471–472
- age effects, hedge fund, 5:76
- agency RMBS, 4:237, 238
- agent options, 1:154
- agents, as trading focus, 6:38–40
- aggregate family portfolios, 2:291–293
- aging, behavioral changes and, 2:117
- AIMA. *see* Alternative Investments Management Association
- AIMR. *see* Association for Investment Management and Research
- AIMR Performance Presentation Standards Handbook, 6:210, 211
- AIMR-PPS. *see* Association for Investment Management and Research Performance Presentation Standards
- Aktiengesellschaft (AG), 5:35
- Albania, 2:304
- ALBI. *see* Asian Local Bond Index
- ALCOs. *see* asset-liability committees
- ALDAs. *see* advanced life deferred annuities
- algorithmic execution systems, 6:42–45
 - implementation shortfall strategies, 6:43–44
 - opportunistic participation strategies, 6:44–45
 - simple logical participation strategies, 6:43
 - specialized strategies, 6:45
- algorithmic trading, 6:40–47
 - classification of algorithmic execution systems, 6:42–45
 - defined, 6:40
 - growth of, 6:41–42
 - reasoning behind logical participation strategies, 6:45–47
- allocation(s). *see also* asset allocation
 - capital, 5:191–193
 - equity, 4:255, 292–293
 - of execution rights/responsibilities, 3:182–184
 - minimum lot, 1:88–89
 - policy, 6:148–149
 - to portfolio managers, 5:184
 - trade allocation procedures, 1:85, 86, 250, 257
 - transaction, 1:87–88
 - working capital, 5:185
- Allocation Effects strategy, 6:154
- Allocation/Selection Interaction return, 6:159
- all-or-nothing options, 3:425
- allowed range, rebalancing to, 6:93–94
- all-risks homeowner's insurance policy, 2:418
- Allstate Corporation, 2:515, 516
- ALM. *see* asset–liability management
- alpha. *see also* behavioral alpha (BA)
 - process
 - and absolute-return investing, 5:62
 - alpha and beta separation, 4:313
 - and core-satellite investing, 5:13
 - in currency overlay programs, 3:395
 - defined, 4:297
 - ex post*, 6:168–169
 - Jensen's, 6:168
 - in long–short investing, 4:297–298
 - portable, 4:298, 313
 - in semiactive equity investing, 4:303–305
 - and semi-strong-form EMH, 2:32
 - tax, 2:251
 - zero-alpha mutual funds, 2:58–59
- Alphabet Inc., 5:33
- alpha core, 5:13
- alpha research, 3:8
- alternative investments, 5:5–129
 - commodities, 5:45–55
 - benchmarks, 5:47–48
 - historical performance, 5:48–50
 - interpretation issues, 5:51
 - investment characteristics, 5:51–53
 - market for, 5:46–47
 - in portfolios, 5:53–55
- common features, 5:7
- defined, 5:7
- distressed securities, 5:94–103
 - bankruptcy process, 5:100–102
 - benchmarks, 5:95
 - example, 5:102–103
 - historical performance, 5:95–97
 - interpretation issues, 5:97
 - investment characteristics, 5:97–98
 - market for, 5:94–95
 - in portfolios, 5:98–100
- evaluation of, 5:10–11
- hedge funds, 5:55–84
 - about, 5:55–56
 - benchmarks, 5:60–62, 70–71
 - due diligence, 5:76–78
 - fund effects, 5:74–76
 - historical performance, 5:62–67
 - interpretation issues, 5:67–71
 - investment characteristics, 5:71–72
 - market for, 5:56–60
 - performance evaluations, 5:78–84
 - in portfolios, 5:72–74
- investors' goals for, 5:6
- low-return environments, 5:9
- managed futures, 5:85–93
 - benchmarks, 5:86–87
 - historical performance, 5:87–89
 - interpretation issues, 5:89
 - investment characteristics, 5:90
 - market for, 5:85–86
 - performance persistence, 5:92
 - in portfolios, 5:90–92
 - strategic asset allocation, 5:92–93
- practice problems, 5:108–120
- private equity, 5:27–45
 - about, 5:27–29
 - benchmarks, 5:37
 - due diligence, 5:43–45
 - historical performance, 5:38
 - interpretation issues, 5:38
 - investment characteristics, 5:38–42
 - market for, 5:29–37
 - in portfolios, 5:42–43
- real estate, 5:13–27
 - benchmarks, 5:15–17
 - due diligence, 5:27
 - historical performance, 5:17–18
 - interpretation issues, 5:19
 - investment characteristics, 5:20–21
 - market for, 5:13–15
 - in portfolios, 5:21–27
 - smoothed data for, 3:14–16
 - solutions to problems, 5:121–129
 - traditional vs., 5:7–13
- Alternative Investments Management Association (AIMA), 5:76–77
- Altman-NYU Salomon Center Defaulted Public Bond and Bank Loan Index, 5:95
- A.M. Best, 2:503
- Amazon, Inc., 6:52
- AMC. *see* Asset Manager Code of Professional Conduct
- AMC Entertainment, 5:99

- American Council for Capital Formation (ACCF), 2:245–246
- American Express, 2:464
- American options, 5:178, 276
- American Stock Exchange (AMEX), 5:17, 277n.3
- American style swaptions, 5:389, 394, 396
- AMH. *see* adaptive markets hypothesis
- amygdala, 2:20
- analysts
- biases of, 2:125–136
 - in conducting research, 2:133–136
 - conservatism bias, 2:53–54
 - in creating capital market expectations, 3:18–19
 - and management's influence on analysis, 2:131–133
 - overconfidence in forecasting skills, 2:126–131
 - judgment of, 3:50
- analytical method, 5:155–160
- anchoring and adjustment bias, 2:63–64, 94–95, 332
- consequences of, 2:63
 - detection and methods of overcoming, 2:63–64
 - diagnostic questions, 2:87, 93
 - and forecasting, 2:132–133
 - and market bubbles, 2:143
 - and momentum effect, 2:140
- anchoring trap, 3:21
- anchor points, 2:63
- angel investors, 5:31–32
- Anglo-Saxon law, 2:158
- annualized return, 6:132
- annuities, 2:422–431. *see also specific types, e.g.: fixed annuities*
- advantages and disadvantages of, 2:426–428
 - appropriateness of, 2:429–431
 - classifications of, 2:423–426
 - advanced life deferred annuities, 2:426
 - deferred fixed annuities, 2:424
 - deferred variable annuities, 2:423–424
 - immediate fixed annuities, 2:424–426
 - immediate variable annuities, 2:424
 - comparing, 2:426
 - from insurance companies, 2:504
 - as non-publicly traded marketable assets, 2:389
 - parties to, 2:423
 - payout methods of, 2:428–429
 - tax benefits of, 2:429
- annuitization, 2:427
- anomalies. *see* market anomalies
- Apple, Inc., 4:233, 278; 5:39
- applicable law
- and Code/Standards, 1:22–23
 - on confidentiality, 1:102
 - in firm policy, 1:77
 - global, 1:23–25
 - and investment products, 1:23–25
 - providing information on, 1:27
- appraisal, performance. *see* performance appraisal
- appraisal data, capital market expectations and, 3:14–16
- appreciation, of gifted assets, 2:290, 291
- appropriateness
- of annuities, 2:429–431
 - of benchmarks, 6:135, 140–141
 - of interdepartmental communications, 1:61
 - of life insurance, 2:416
- approval
- from clients, 1:77
 - for outside compensation, 1:117
- arbitrage
- defined, 5:214
 - distressed debt, 5:98
 - hedge fund strategies for, 5:57
 - limited, 2:35–36
 - for pension funds, 2:252–253
 - risk-arbitrage trading, 1:63
- arbitrageurs, 6:34
- Archipelago Exchange, 6:42
- ARCH time-series models. *see* autoregressive conditional heteroskedasticity time-series models
- Argentina
- currency crisis, 3:78
 - in Hague Conference, 2:304
 - inflation-linked bonds, 4:9
 - interest income taxation, 2:227
 - market integration, 3:43
 - tax-advantaged savings accounts, 2:246
 - tax regime, 2:231, 347
 - trade partners, 3:84
- arithmetic mean return, geometric vs., 3:24
- arrival price strategy, 6:43–44
- Asia. *see also* MSCI EAFE (Europe, Australasia, and Far East) Index; *specific countries*
- economic indicators, 3:83
 - foundations, 3:337
 - inflation, 3:56
 - real estate allocations, 5:21, 22
- AsiaHedge, 5:60, 61
- Asian financial crisis (1997)
- and currency values, 3:100
 - as exogenous shock, 3:75
 - and inflation, 3:56
 - international interactions in, 3:76, 80
 - liquidity in, 3:329
- Asian Local Bond Index (ALBI), 4:97–98
- ask price, 6:10–11
- ask size, 6:10
- aspirational risk bucket, 2:334, 335; 3:214
- aspiration levels, 2:23
- asset allocation, 3:177–234
- adjusting, 5:241–248
 - after-tax, 2:247–248, 292–293
 - approaches, 3:191–201
 - modeling asset class risk, 3:195–201
 - relevant objectives, 3:194
 - relevant risk concepts, 3:194–195
 - types of, 3:191–193
 - and availability bias, 2:68
 - behavioral biases in, 3:367–369
 - behaviorally-modified, 2:81–96
 - about, 2:82–83
 - amount to moderate or adapt, 2:84–86
 - case studies, 2:86–96
 - guidelines, 2:83–84
 - and investment policy development, 2:81–82
 - and currency risk, 3:389
 - and economic balance sheet, 3:188–191
 - and endowment bias, 2:79
 - and equity market risk, 5:384–387
 - equity total return swaps in, 4:275–276
 - and futures, 5:241–250
 - glide path, 2:121
 - goals-based, 3:289–306
 - description of client goals for, 3:293–295
 - issues related to, 3:304–306
 - module process in, 3:300–304
 - overall portfolio in, 3:298–300
 - process for, 3:291–293
 - revisiting overall asset allocation in, 3:304
 - sub-portfolio construction for, 3:295–298
 - human capital in, 2:440–443
 - implementation choices, 3:216–221
 - of allocations to asset classes, 3:217–219
 - of asset class weights, 3:216–217
 - risk budgeting perspectives in, 3:221
 - importance of, 3:178–180
 - for individual investors, 2:188–199
 - case studies, 2:188–196
 - examples, 2:188–191, 193–196
 - Monte Carlo simulation, 2:196–199
 - process of elimination for, 2:188–196
 - and investment governance, 3:180–188
 - allocation of rights and responsibilities, 3:182–184
 - articulating investment objectives, 3:181–182
 - governance audit, 3:185–186
 - governance structures, 3:180–181
 - investment policy statement, 3:184
 - rebalancing policy, 3:185
 - reporting framework, 3:185
 - liability-relative, 3:273–287
 - approaches to, 3:276–289
 - characterization of liabilities in, 3:273–276
 - factor modeling in, 3:289
 - robustness of asset allocation alternatives, 3:287–288
 - market indexes for, 3:471
 - overview of, 3:177–178
 - practice problems, 3:230–232
 - rebalancing, 3:222–226
 - framework for, 3:223–224
 - policy on, 3:185
 - strategic considerations in, 3:225–226
 - and risk reduction, 2:443–446
 - robustness of alternatives to, 3:287–288
 - short-term shifts in, 3:359–361
 - simulations of, 2:196
 - solutions to problems, 3:233–234
 - strategic, 3:201–216; 4:104
 - asset-only allocation, 3:203–208
 - for common stock, 3:346–348
 - goals-based allocation, 3:211–216

- asset allocation (*continued*)
 - liability-relative allocation, 3:208–211
 - as long-term movement, 3:262
 - with managed futures, 5:92–93
 - Monte Carlo simulations used in, 3:249–250
 - with real estate, 5:26–27
 - real-world constraints in, 3:349–355
 - statements of, 2:192–193
 - steps in selecting, 3:202–203
 - utility theory in, 3:201–202
- and sustainability of spending rates, 2:285–287
- tactical
 - benchmark selection for, 4:104
 - discretionary, 3:357–358
 - equity swaps in, 4:276
 - global, 3:216
 - new analysis and information for, 6:82
 - real-world constraints in, 3:356–361
 - as short term, 3:262
 - systematic, 3:358–359
 - tolerance bands for, 6:92–93
- asset allocation principles, 3:235–317
- asset-only allocation, 3:237–272
 - allocating to less liquid asset classes, 3:265–266
 - criticisms of mean–variance optimization, 3:252–265
 - factor-based allocation, 3:269–272
 - mean–variance optimization, 3:237–249
 - Monte Carlo simulation, 3:249–252
 - risk budgeting, 3:267–269
- goals-based allocation, 3:289–306
 - description of client goals for, 3:293–295
 - issues related to, 3:304–306
 - module process in, 3:300–304
 - overall portfolio in, 3:298–300
 - process for, 3:291–293
 - revisiting overall asset allocation in, 3:304
 - sub-portfolio construction for, 3:295–298
- liability-relative allocation, 3:273–287
 - approaches to, 3:276–289
 - characterization of liabilities in, 3:273–276
 - factor modeling in, 3:289
 - robustness of asset allocation alternatives, 3:287–288
- other approaches to, 3:306–311
- overview, 3:236–237
- portfolio rebalancing in practice, 3:311–315
- asset allocation with real-world constraints, 3:321–371
 - behavioral biases, 3:361–369
 - availability bias, 3:366–367
 - framing bias, 3:365–366
 - illusion of control, 3:362–363
 - loss aversion, 3:362
 - mental accounting, 3:363–364
 - representative bias, 3:364–365
 - constraints in asset allocation, 3:322–340
 - asset size, 3:322–327
 - liquidity, 3:327–330
 - regulatory and other external constraints, 3:334–340
 - time horizon, 3:330–334
- overview, 3:321
- strategic asset allocation, 3:349–355
- tactical asset allocation, 3:356–361
 - discretionary, 3:357–358
 - systematic, 3:358–359
- taxes, 3:340–349
 - after-tax portfolio optimization, 3:341–344
 - and portfolio rebalancing, 3:344–345
 - strategies to reduce tax impact, 3:345–346
- asset-backed securities (ABSs)
 - in credit portfolios, 4:239
 - mortgage-backed securities in credit portfolios, 4:237–238
 - defined, 4:236
 - and negative convexity, 4:134
 - for reducing convexity, 4:168–169
- asset-based models of equity market, 3:157–161
- Asset Category strategy, 6:151–152
- asset class(es)
 - in asset allocation implementation, 3:217–219
 - concentrated positions in, 2:323–324
 - corridors for, 6:91–93
 - and factors, 3:270
 - forecasting returns of, 3:89–104
 - cash and equivalents, 3:89–90
 - common shares, 3:93–97
 - currencies, 3:99–100
 - defaultable debt, 3:92
 - emerging market bonds, 3:92
 - and exchange rates, 3:100–103
 - and government intervention, 3:104
 - and historical capital market expectations, 3:97–99
 - inflation-indexed bonds, 3:92–93
 - nominal default-free bonds, 3:91–92
 - real estate, 3:97
 - foreign exchange as, 3:394, 395
 - human capital as, 2:442
 - inflation/deflation effects for, 3:59
 - and investor constraints, 3:323–324
 - and liquidity, 3:266
 - in liquidity assessments, 3:329
 - liquidity of, 3:265–266
 - in Monte Carlo simulations, 2:198, 199
 - negative interest rates effects for, 3:67
 - optimal corridor width of, 3:312–313
 - pre-investing in, 5:248–250
 - selection of, 2:195
 - sub-asset classes, 3:199
 - tax profiles of, 2:251–252
 - value signals of, 3:358
- asset class risk, 3:195–201
 - classification of, 3:195–198
 - and diversification, 3:197
 - sub-asset classes, 3:199
- asset class weights
 - in asset allocation implementation, 3:216–217
 - in mean–variance optimization, 3:253–254
 - and rebalancing, 3:314–315
 - and reverse optimization, 3:256
- asset composition, in foreign-currency portfolios, 3:390
- asset covariance matrix, 3:28
- asset-driven liabilities (ADLs), 4:49
- asset integration, 2:165
- asset-liability committees (ALCOs), 2:520–521; 4:49
- asset–liability management (ALM). *see* *also* liability-based mandates and asset allocation, 3:285
- for defined-benefit pension plans, 2:467
- fixed-income mandates in, 4:11
- in liability-driven investing, 4:48, 49
- asset location
 - and asset allocation, 2:196
 - and concentrated positions, 2:337
 - defined, 2:188
 - holistic approach to, 3:349
 - and real estate monetization, 2:367
 - and wealth management, 2:251–254
- asset location decision, 2:337
- Asset Manager Code of Professional Conduct (AMC), 1:129, 239–265
- Code of Ethics and Standards of Professional Conduct vs., 1:10
- compliance of firms with Standard I(A), 1:27
- Disclosures (Part F), 1:243–244, 255–258
- introduction, 1:239–241
- Investment Processes and Actions (Part B), 1:242, 245–248
- Loyalty to Clients (Part A), 1:242, 244–245
- Performance and Valuation (Part E), 1:243, 254–255
- practice problems, 1:259–263
- principles of conduct, 1:241
- recommendations and guidance, 1:244–258
- Risk Management, Compliance, and Support (Part D), 1:243, 250–254
- solutions to problems, 1:264–265
- text of, 1:242–244
- Trading (Part C), 1:242–243, 248–250
- asset marketability risk, 2:505–506
- asset-only allocation, 3:203–208, 237–272
 - allocating to less liquid asset classes, 3:265–266
 - criticisms of mean–variance optimization, 3:252–265
 - Black–Litterman model, 3:256–259
 - constraints beyond budget constraints, 3:259
 - non-normal optimization approaches, 3:261–265
 - resampled mean–variance optimization, 3:260–261
 - reverse optimization, 3:254–256
 - defined, 3:192
 - for defined benefit pension plan, 3:209–210
 - factor-based allocation, 3:269–272
 - investment objectives of, 3:194
 - mean–variance optimization, 3:237–249
 - Monte Carlo simulation, 3:249–252

- risk budgeting, 3:267–269
- risk concepts relevant to, 3:194–195
- tactical asset allocation as, 3:356
- asset owners, in investment policy statements, 3:184
- asset pricing
 - behavioral approach to, 2:38–39, 145
 - in behavioral finance, 2:167
 - CAPM, 2:34, 38
 - Fama and French three-factor model, 2:144
 - risk premiums in, 3:50
 - in traditional finance, 2:166
- asset protection, trusts for, 2:301
- asset risk attributes, changes in, 6:79
- assets
 - business, 2:389
 - capital, 3:195
 - consumable/transformable, 3:195
 - correlations of
 - in asset-only allocation, 3:240–241
 - inconsistency of estimates, 3:12–13
 - judgment in estimates, 3:50
 - misinterpretations of, 3:20–21
 - nonlinear, 3:20
 - partial, 3:20
 - in portfolio rebalancing, 3:313
 - and taxation estimates, 3:342
 - current, 2:386
 - custody of, 1:74
 - domestic, 3:381
 - on economic balance sheets, 2:396
 - extended portfolio, 3:188
 - foreign, 3:382–384
 - gifted, 2:290, 291
 - illiquid, 3:226, 265–266
 - as inflation hedges, 4:255–256
 - investment, 2:388
 - mixed, 2:387
 - non-core, 2:360
 - non-current, 2:386
 - non-marketable, 2:389–390
 - non-publicly traded marketable, 2:388–389
 - personal, 2:387
 - pooled, 3:325
 - portable, 2:464
 - real, 3:59, 198
 - risk-free, 3:246–247
 - size of, as asset allocation constraint, 3:322–327
 - store of value assets, 3:195
 - total firm, 6:219–220, 292
 - on traditional balance sheets, 2:395
- asset segregation, in behavioral finance, 2:166
- asset under management (AUM) fees, 4:315; 5:58–59
- asset weighing, 1:99
- asset-weighted standard deviation, 6:253–254
- Association for Investment Management and Research (AIMR), 6:210, 211
- Association for Investment Management and Research Performance Presentation Standards (AIMR-PPS), 6:210, 211
- assurity of completion, 6:9
- assurity of the contract, 6:20
- asynchronism, 3:17n.8
- AT&T, 4:211–212
- at-the-money (ATM) options, 3:405
- attitudes toward risk, 2:17–19
- attribution, performance. *see* performance attribution
- auction markets, 6:10, 16
- audits
 - of accounts, 1:257–258
 - governance, 3:185–186
- AUM fees. *see* asset under management fees
- Aussie-dollar market (USD/AUD), 3:376, 428
- Australia. *see also* MSCI EAFE (Europe, Australasia, and Far East) Index
 - capital gains taxes, 2:236, 240n.5
 - Conference Board index, 3:84
 - corporate estate tax freeze, 2:338
 - deemed disposition regimes, 2:298
 - defined-benefit pension plans, 2:473
 - equity real rates of return, 4:256
 - equity risk premium, 3:39
 - exit taxes, 2:306–307
 - expected returns for equities/bonds, 3:24
 - franking in, 2:228
 - in Hague Conference, 2:304
 - market bubbles, 2:142
 - market integration, 3:43
 - pension fund equity allocations, 4:255
 - real estate market, 5:16, 22, 25
 - real GDP growth rate, 3:32
 - REITs, 5:14
 - tax-advantaged savings accounts, 2:246
 - tax regime, 2:231, 347
 - wealth taxes, 2:238
- Australian dollar
 - as commodity currency, 3:439
 - currency code, 3:375
 - in currency pairs, 3:376, 428
 - yen carry trade with, 4:135
- Austria
 - capital gains tax, 2:228
 - Eurozone membership, 3:9n.
 - and EUSD, 2:311
 - foundations, 3:337
 - and German exports, 3:83
 - in Hague Conference, 2:304
 - tax regime, 2:231, 347
- authorized participants, ETF, 4:102
- automated auctions, 6:16
- automated trading, 6:40–47
 - algorithmic trading, 6:40–47
 - classification of algorithmic execution systems, 6:42–45
 - implementation shortfall strategies, 6:43–44
 - opportunistic participation strategies, 6:44–45
 - simple logical participation strategies, 6:43
 - specialized strategies, 6:45
- defined, 6:40
- reasoning for logical participation algorithmic strategies, 6:45–47
- automobile insurance, 2:420
- autopilot strategies, 2:120
- autoregressive conditional heteroskedasticity (ARCH) time-series models, 3:27n.25
- availability bias, 2:67–69, 332
 - of analysts, 2:126, 128
 - in asset allocation, 3:366–367
 - consequences of, 2:68
 - detection and methods of overcoming, 2:69
 - diagnostic questions, 2:87
 - and forecasting, 2:132
 - and momentum effect, 2:140
- average effective spread, 6:13
- AXA Equitable-NY, 2:504, 516
- B**
 - Bachelier, Louis, 2:30
 - back-end loaded tax benefits, 2:246
 - backfill bias, of hedge funds, 5:70
 - back office, 5:139
 - backtesting, 5:169
 - Bahamas, 2:276
 - Bahrain, 3:76
 - baht, Thai, 3:329, 438
 - BAI. *see* Bank Administration Institute
 - Bailard, Biehl, and Kaiser (BB&K) model of investor behavior, 2:109–110
 - Bailey, Jeffery V., 3:465, 468, 480
 - balance of payments, 3:79n.64
 - balance sheet(s)
 - economic (holistic)
 - and asset allocation, 3:188–191
 - assets on, 2:382
 - human capital considered on, 2:442
 - used in individual risk management, 2:396–397
 - individual, 2:394–400
 - changes in net wealth, 2:397–400
 - economic (holistic) balance sheet, 2:396–397
 - traditional balance sheet, 2:395–396
 - life, 2:279–280
 - traditional, 2:395–397
- bancassurance, 2:519n.29
- Bank Administration Institute (BAI), 6:126, 131, 132, 210
- Bank for International Settlements (BIS), 5:359n.4
- Bank Herstatt, 5:146
- Bank of England, 3:65
- Bank of Japan, 3:65, 83
- Bank of Thailand, 3:100
- bankruptcy, 5:100–102
 - absolute priority rule, 5:102
 - Chapter 7 and Chapter 11, 5:94, 101, 102
 - and international portfolios, 4:236
 - netting in, 5:187–188
 - in Orange County, California, 4:184
 - prepackaged filings, 5:99, 102
 - in United States vs. other countries, 5:101
- Bankruptcy Reform Act (1978), 5:101
- banks and banking
 - central banks
 - monetary policy of, 3:56–57, 63; 6:80
 - negative interest rates, 3:65
 - watching of, 3:90
 - in emerging market indexes, 4:235

- banks and banking (*continued*)
 - integrated asset–liability approach for, 3:285
 - investment, 1:32–33; 2:519–520
 - investment policy statements for, 2:524–526
 - offshore, 2:310–311
 - portfolio management for, 2:519–526
 - legal and regulatory factors, 2:523
 - liquidity requirements, 2:523
 - return objectives, 2:523
 - risk objectives, 2:522
 - tax concerns, 2:523
 - time horizon, 2:523
 - unique circumstances, 2:524
 - universal, 2:519–520
- BA process. *see* behavioral alpha process
- barbell portfolios
 - convexity, 4:108
 - defined, 4:142
 - duration-neutral, 4:151–160, 162–164
 - extreme, 4:172–173
 - extreme vs. less extreme, 4:175–177
 - laddered portfolio vs., 4:172–175
 - structure, 4:107, 141–145
- Barclay CTA Asset Weighted Currency Index, 5:88
- Barclay CTA Asset Weighted Discretionary Index, 5:88
- Barclay CTA Asset Weighted Diversified Index, 5:88
- Barclay CTA Asset Weighted Financials Index, 5:88
- Barclay CTA Asset Weighted Systematic Index, 5:88
- BarclayHedge, 5:60, 86
- Barclays Capital US Aggregate Bond Index, 4:103; 6:247
- Barclay Systematic Traders Index, 5:86
- Barclay Traders indexes, 5:86
- Barker, William A., 3:399n.15
- Barnewall, Marilyn MacGruder, 2:108–109
- Barnewall two-way model of investor behavior, 2:108–109
- base currency, 3:375–377
- Basel Committee on Banking Supervision, 5:181
- Basel I. *see* Capital Accord of 1988
- Basel II. *see* New Basel Capital Accord
- Basel III, 2:523; 4:94
- base-rate neglect, 2:56–57
- base rates, forecasting and, 2:129–131
- basis
 - cost, 2:235, 237–238, 329
 - for decision making, 1:246–247
 - reasonable (*see* Diligence and Reasonable Basis [Standard V(A)])
- basis point value (BPV), 4:68; 5:220
- basis risk, 3:284
- basket trades, 4:274
- batch auction markets, 6:16
- Bayes' formula, 2:9–11, 129
- BB Holdings, 5:230–231
- BB&K model of investor behavior. *see* Bailard, Biehl, and Kaiser model of investor behavior
- BCOM. *see* Bloomberg Commodity Index
- bear spreads, 5:296–299
- Becton Dickinson & Co., 4:280
- behavior
 - aging and changes in, 2:117
 - herding, 2:80, 140
 - individual, 2:7–20
 - in behavioral finance, 2:14–19
 - BFMA and BFMI, 2:7–8
 - and neuro-economics, 2:19–20
 - in traditional finance, 2:8–14
 - irrational, 2:117
 - market, 2:28–41
 - behavioral factors in, 2:138–145
 - in behavioral finance, 2:37–38, 41
 - in traditional finance, 2:28–36
 - pre-dissemination, 1:85
 - and risk management, 5:193
 - temporary disequilibrium, 2:139
- behavioral alpha (BA) process, 2:111–116
 - Active Accumulators, 2:116
 - classifying investors as behavioral investor types, 2:113–116
 - Friendly Followers, 2:115
 - Independent Individualists, 2:115–116
 - Passive Preservers, 2:114–115
 - plotting on risk tolerance and active/passive scale, 2:112
 - testing for behavioral biases, 2:112–113
 - testing for risk tolerance and active/passive traits, 2:111–112
- behavioral biases, 2:49–105
 - of analysts, 2:125–136
 - in conducting research, 2:133–136
 - and management's influence on analysis, 2:131–133
 - overconfidence in forecasting skills, 2:126–131
- behaviorally-modified asset allocation, 2:81–96
 - about, 2:82–83
 - amount to moderate or adapt, 2:84–86
 - case studies, 2:86–96
 - guidelines, 2:83–84
 - and investment policy development, 2:81–82
- and BFMI/BFMA, 2:7–8, 49–50
- categorizations of, 2:50–52
- cognitive errors, 2:52–69
 - belief perseverance biases, 2:52–63
 - confirmation bias, 2:55–56
 - conservatism bias, 2:52–55
 - emotional biases vs., 2:51–52
 - hindsight bias, 2:62
 - illusion of control bias, 2:61
 - information-processing biases, 2:63–69
 - representativeness bias, 2:56–60
- in committee decision making, 2:136–138
- dealing with biases in asset allocation, 3:361–369
 - availability bias, 3:366–367
 - framing bias, 3:365–366
 - illusion of control, 3:362–363
 - loss aversion, 3:362
 - mental accounting, 3:363–364
 - representative bias, 3:364–365
- emotional biases, 2:70–81
 - cognitive errors vs., 2:51–52
 - endowment bias, 2:78–79
 - loss-aversion bias, 2:70–73
 - overconfidence bias, 2:73–76
 - regret-aversion bias, 2:79–80
 - self-control bias, 2:76–77
 - status quo bias, 2:77–78
- practice problems, 2:99–101
- solutions to problems, 2:102–105
- testing for, 2:112–113
- behavioral factors in investment processes, 2:107–154
 - adviser-client relations, 2:117–120
 - client expectations, 2:118
 - consistency of approach, 2:118
 - financial goals, 2:118
 - limitations of risk tolerance questionnaires, 2:119–120
 - mutual benefits, 2:119
 - analysts' forecasts, 2:125–136
 - biases in conducting research, 2:133–136
 - management's influence on analysis, 2:131–133
 - overconfidence in forecasting skills, 2:126–131
- committee decision making, 2:136–138
 - investment committee dynamics, 2:137
 - techniques for structuring and operating committees, 2:137–138
- and decision-making process, 2:107–108
- investor types, 2:108–117
 - Barnewall two-way model, 2:108–109
 - BB&K model, 2:109–110
 - limitations of classification, 2:116–117
 - psychographic modeling, 2:110–116
- market behavior, 2:138–145
 - bubbles and crashes, 2:141–144
 - market anomalies, 2:138–139
 - momentum, 2:140–141
 - value and growth stocks, 2:144–145
- portfolio construction, 2:120–125
 - and behavioral portfolio theory, 2:124–125
 - company stock, 2:122–123
 - excessive trading, 2:123–124
 - home bias, 2:124
 - inertia and default options, 2:120–121
 - naïve diversification, 2:122
 - target date funds, 2:121
 - practice problems, 2:148–152
 - solutions to problems, 2:153–154
- behavioral finance, 2:5–47. *see also*
 - behavioral factors in investment processes
 - about, 2:5–7
 - decision making in, 2:20–28
 - bounded rationality, 2:22–24
 - decision theory, 2:20–22
 - prospect theory, 2:24–28
- individual behavior in, 2:7–20
 - attitudes toward risk, 2:17–19
 - BFMA and BFMI, 2:7–8

- challenges to rational economic man, 2:15
 - and neuro-economics, 2:19–20
 - traditional perspectives on, 2:8–14
 - utility maximization, 2:15–17
 - market behavior in, 2:28–41
 - adaptive markets hypothesis, 2:41
 - asset pricing, 2:38–39
 - and behavioral portfolio theory, 2:39–40
 - consumption and savings, 2:37–38
 - traditional perspectives on, 2:28–36
 - and traditional perspectives on portfolio construction, 2:36
 - model uncertainty in, 3:23
 - practice problems, 2:45–46
 - and psychological profiling of individual investors, 2:166–167
 - solutions to problems, 2:47
 - traditional vs.
 - individual behavior, 2:8–14
 - market behavior, 2:28–36
 - portfolio construction, 2:36
 - behavioral finance macro (BFMA), 2:7–8, 49
 - behavioral finance micro (BFMI), 2:7–8, 49
 - behavioral investor types (BITs), 2:110.
 - see also* psychographic modeling of investors
 - behavioral life-cycle model, 2:37–38
 - behaviorally-modified asset allocation, 2:81–96
 - about, 2:82–83
 - amount to moderate or adapt, 2:84–86
 - case studies, 2:86–96
 - high wealth level investor with emotional biases, 2:88–92
 - low wealth level investor with cognitive errors, 2:92–96
 - guidelines, 2:83–84
 - and investment policy development, 2:81–82
 - behavioral portfolio theory (BPT), 2:39–40
 - example, 2:40
 - and mental accounting bias, 2:64
 - and portfolio construction, 2:124–125
 - Belarus, 2:304
 - Belgium
 - capital gains tax, 2:236
 - equity real rates of return, 4:256
 - equity risk premium, 3:39
 - Eurozone membership, 3:9n.
 - and EUSD, 2:311
 - expected returns for equities/bonds, 3:24
 - in Hague Conference, 2:304
 - REITs, 5:14
 - tax regime, 2:231, 347
 - trade partners, 3:83
 - wealth taxes, 2:238
 - belief perseverance biases, 2:52–63
 - confirmation bias, 2:55–56
 - conservatism bias, 2:52–55
 - hindsight bias, 2:62
 - illusion of control bias, 2:61
 - representativeness bias, 2:56–60
 - beliefs
 - changes in, 3:351–353
 - and conservatism bias, 2:54
 - rational belief equilibrium, 3:23n.18
 - and representativeness bias, 2:58
 - benchmark bonds
 - and credit spreads, 4:200–201
 - and 1-spread evaluation, 4:202
 - shortcomings, 4:212
 - benchmark description, 6:248, 275, 287
 - benchmark portfolio returns, 6:149
 - benchmarks, 6:133–146
 - about, 3:463–464
 - absolute, 6:136
 - and active portfolio management, 4:123
 - for after-tax portfolio returns, 6:281–282
 - in asset allocation reporting, 3:185
 - bonds as, 4:200–202, 212
 - broad market indexes, 6:136–137
 - for commodities, 5:47–48
 - custom security-based, 6:139–140
 - defined, 3:463; 6:134–135
 - for distressed securities, 5:95
 - factor-model-based, 6:137–138
 - for fixed-income portfolios, 4:104–107
 - for hedge funds, 5:60–62
 - alpha determination and absolute-return investing, 5:62
 - comparison of manager-based hedge fund indexes, 5:61–62
 - indexes as benchmarks, 5:70–71
 - performance evaluations for portfolios, 6:143–146
 - indexes as, 3:479, 480; 4:263–266
 - Industry Classification Benchmark, 4:324
 - investor's, 4:311
 - for managed futures, 5:86–87
 - manager universes, 6:136, 140–141
 - market indexes vs., 3:465
 - performance measurement, 1:93
 - for private equity, 5:37
 - for real estate, 5:15–17
 - returns-based, 6:138–139
 - selection example, 3:481–483
 - style indexes, 6:137
 - tests of quality, 6:142–143
 - types, 3:468–471; 6:136–139
 - unconditional, 3:19
 - uses of, 3:466–468
 - valid
 - impact of, 3:464
 - manager universes as, 6:140–141
 - properties of, 6:135–136
 - requirements of, 3:465
 - tests of, 3:480
 - benchmark spread, 4:200
 - Benchmarks strategy, 6:152–153
 - beneficial ownership, 1:158
 - beneficiaries, of trusts, 2:184–185
 - benefit period, of disability income insurance, 2:417–418
 - BERC. *see* Bloomberg EUR Investment Grade European Corporate Bond Index
 - Bernanke, Ben, 2:6
 - Bernstein, Peter L., 3:10, 470–471
 - best efforts order, 6:8
 - best execution (term)
 - and Asset Manager Code of Professional Conduct, 1:250
 - and Loyalty, Prudence, and Care [Standard III(A)], 1:76, 78
 - and trade execution decisions, 6:37
 - in Trade Management Guidelines, 6:48
 - Best Practice Guidelines Governing Analyst/Corporate Issuer Relations* (CFA Institute), 1:33; 4:299
 - beta
 - alpha and beta separation, 4:313
 - changing, 5:240–241
 - and credit quality, 4:216
 - defined, 5:152; 6:138
 - and duration profile, 4:105
 - factor, 3:28–29
 - and market-neutral strategies, 4:297–298, 301
 - measuring and managing, 5:228–229
 - normal, 6:138
 - and RBSA, 4:283
 - and short extension strategies, 4:300
 - smart, 4:105
 - and stock indexes, 4:260
 - and systematic bias, 6:142
 - yield, 5:222, 228n.17
 - beta research, 3:8
 - BEUH. *see* Bloomberg EUR High Yield Corporate Bond Index
 - BFMA. *see* behavioral finance macro
 - BFMI. *see* behavioral finance micro
 - BHP Billiton Limited, 4:94
 - biases. *see also specific types, e.g.:*
 - forward rate bias
 - of analysts, 2:125–136
 - in conducting research, 2:133–136
 - conservatism bias, 2:53–54
 - in creating capital market expectations, 3:18–19
 - and management's influence on analysis, 2:131–133
 - overconfidence in forecasting skills, 2:126–131
 - and asset allocation, 3:361–369
 - availability bias, 3:366–367
 - framing bias, 3:365–366
 - illusion of control, 3:362–363
 - loss aversion, 3:362
 - mental accounting, 3:363–364
 - representative bias, 3:364–365
 - for hedge funds, 5:67–70
 - in index creation, 5:67–68
 - in market-oriented investment styles, 4:281
- bid-ask spread, 6:10
 - and credit risk, 5:144
 - effective, 6:12–14
 - inside, 6:11
 - and liquidity, 4:20, 22, 198
 - market, 6:11
 - and market quality, 6:19
 - for on-the-run sovereign bonds, 4:19
 - in secondary credit markets, 4:228–229
 - and transaction costs, 6:22

- bid-offer spreads
 - and bond inventory, 4:94
 - and liquidity, 4:198, 199
 - for on-the-run Treasuries, 4:155
 - bid price, 3:377; 6:8, 10
 - bid size, 6:10
 - “big figure,” currency quote, 3:376
 - Big Four European countries, CLI for, 3:82
 - bilateral repos, 4:30
 - binary options, 3:425
 - binomial model, 5:310, 343
 - BIS. *see* Bank for International Settlements
 - BITs. *see* behavioral investor types
 - Black, Fischer, 3:256
 - Black–Litterman approach, 3:12, 40, 256–259
 - blackout periods, 1:159; 2:330
 - Black–Scholes–Merton pricing option
 - and box spreads, 5:310
 - and delta hedging, 5:335
 - formula for, 5:304
 - and model risk, 5:145
 - prices from, 5:277n.4, 291
 - volatility in, 5:152, 343
 - blend investment style, 4:280–281
 - blind trusts, 1:200
 - block orders, 6:17
 - Bloomberg, 3:104, 105
 - Bloomberg Barclays, 3:471; 4:207
 - Bloomberg Barclays Aggregate Bond Index, 5:108
 - Bloomberg Barclays Euro Corporate Index, 4:206
 - Bloomberg Barclays Global Aggregate Bond Index, 4:18–19
 - bond eligibility standards, 4:98n.24
 - bond market correlation matrix, 4:7
 - composition of, 4:93
 - and global credit market, 4:192
 - and total return mandates, 4:11
 - Bloomberg Barclays Global Aggregate–Corporate Bond Index, 4:197
 - Bloomberg Barclays Global Bond Index
 - commodities correlations, 5:109–110
 - hedge fund correlations, 5:111
 - Bloomberg Barclays Global Corporate Index, 4:237
 - Bloomberg Barclays Global Credit Index, 4:233
 - Bloomberg Barclays Global Government Bond Index, 3:482
 - Bloomberg Barclays Global High Yield Index, 4:197
 - Bloomberg Barclays Global Securitized Index, 4:237
 - Bloomberg Barclays Government/Credit Bond Index
 - commodities correlations, 5:109–110, 123
 - hedge fund correlations, 5:110–111, 124
 - Bloomberg Barclays Inflation-Linked Bond Index, 3:482
 - Bloomberg Barclays Sterling Aggregate Bond Index, 3:465
 - Bloomberg Barclays Sterling Gilts Index, 3:465
 - Bloomberg Barclays US Aggregate Bond Index, 5:116
 - bond market correlation matrix, 4:6–8
 - capital market forecasts based on, 3:44
 - commodities correlations, 5:48, 50, 53–55
 - composition of, 4:93, 104–105
 - consumer credit value in, 4:239
 - distressed securities correlations, 5:96–97
 - hedge fund correlations, 5:62–66, 73
 - managed futures correlations, 5:87–89, 91
 - origins, 4:95
 - real estate correlations, 5:17–18
 - Bloomberg Barclays US Corporate Bond Index
 - benchmark selection, 3:482
 - bond market correlation matrix, 4:6, 7
 - and tail risk, 4:231
 - Bloomberg Barclays US Corporate High Yield Bond Index, 5:88
 - bond market correlation matrix, 4:6–8
 - commodities correlations, 5:48, 50, 53
 - distressed securities correlations, 5:96–97
 - and global speculative-grade default rate, 4:217
 - hedge fund correlations, 5:64–66
 - managed futures correlations, 5:89
 - Bloomberg Barclays US Credit Index, 4:206
 - Bloomberg Barclays US Government Bond Index, 5:48–50, 53–55
 - Bloomberg Barclays US TIPS Index, 4:6, 7
 - Bloomberg Barclays US Treasury Bond 10-Year Term Index, 4:6, 7
 - Bloomberg Commodity Index (BCOM), 5:47, 51
 - Bloomberg EUR High Yield Corporate Bond Index (BEUH), 4:106
 - Bloomberg EUR Investment Grade European Corporate Bond Index (BERC), 4:106, 107
 - BLS. *see* Bureau of Labor Statistics
 - boards of directors, benchmarks for, 3:467
 - BofA Merrill Lynch US High Yield Master II Index, 4:206
 - Bogle, John, 4:259
 - bond futures, risk of, 5:221–223
 - bond indexes, matching portfolio to, 4:92–98
 - bond portfolio(s). *see also* fixed-income portfolio management
 - corporate
 - credit mitigation risk, 4:194
 - credit risk, 4:193–194
 - interest rate risk, 4:195–198
 - liquidity and trading, 4:198–199
 - spread risk, 4:194–195
 - dedicated, 4:64
 - government, 5:223–226
 - risk of, 5:219–221
 - bond portfolio risk, 5:219–227
 - balancing types of risks, 5:221–223
 - of government bond portfolios, 5:223–226
 - risk of bond futures, 5:221–223
 - risk of bond portfolio, 5:219–221
 - variations and problems, 5:226–227
 - bond price, yield and, 5:219–221
 - bonds. *see also* fixed-income investments; *specific types*
 - adjusting allocation between, 5:244–245
 - adjusting allocation between stocks and, 5:241–243, 246–247
 - in current and previous investing environments, 3:351–352
 - with embedded options
 - and cash flow matching, 4:13
 - and credit spread measures, 4:204
 - effective convexity, 4:131
 - effective duration, 4:130
 - expected return decomposition, 4:24
 - immunization, 4:14
 - interest rate exposure, 4:221
 - and OAS, 4:203
 - yield curve strategies, 4:168–169
 - equities vs., 4:94–95
 - expected returns, 3:24–25, 36
 - formula for price of, 4:148
 - inflation/deflation effects for, 3:59; 4:256
 - insurance company investments in, 2:515–516
 - yield to maturity of, 3:35
- bond structure, 4:212
- bond-yield-plus-risk-premium method, 3:38
- bond yields
 - and annuity pricing, 2:426
 - covered, 4:240
 - and credit spread, 4:200–201
 - decomposing expected returns, 4:23–26
 - and expected return, 4:23
 - and interest rate risk, 4:195
 - and liquidity, 4:20, 21
 - nominal, 3:76–77
 - price and, 5:219–221
 - real, 3:91, 93
 - yield to maturity, 3:35
 - yield to worst, 3:35n.38
- bonus compensation, 1:116–117
- borrowing
 - calls with, 5:313–318
 - margin, 3:357
 - short-term, 3:79
 - swaptions in anticipation of, 5:390–394
- Bosnia and Herzegovina, 2:304
- bottom-up approach to credit strategy, 4:206–215
 - defined, 4:206
 - dividing the credit universe, 4:206–207
 - portfolio construction, 4:214–215
 - relative value analysis, 4:207–211
 - spread curves, 4:211–214
 - top-down approach vs., 4:224
- bottom up approach to psychographic modeling, 2:110
- bottom-up forecasts, 3:140–146
 - earnings forecast revisions based on, 3:145–146
 - of market earnings per share, 3:144, 146
 - portfolio suitability for, 3:142–143
 - top-down vs., 3:141, 144–145
 - using top-down forecasts with, 3:143–145

- bottom-up portfolio construction, 4:214–215, 224
 - bottom-up research approaches, 4:322, 323
 - bounded rationality, 2:15, 20, 22–24
 - box spreads, 5:310–312
 - BP p.l.c., 6:7–8
 - BPT. *see* behavioral portfolio theory
 - BPV. *see* basis point value
 - Brazil
 - capital gains tax, 2:228
 - gift tax, 2:293
 - government bonds, 4:150
 - in Hague Conference, 2:304
 - inflation-linked bonds, 4:9
 - market integration, 3:43
 - pension funds, 3:335
 - tax rates, 2:179
 - tax regime, 2:231, 347
 - Brazilian Institute for Geography and Statistics, 3:84
 - Brazilian real, 3:375, 440–441
 - Brazil Industrial Production, 3:84
 - BRC survey. *see* British Retail Consortium survey
 - breakeven point
 - bear spread, 5:298
 - box spread, 5:311
 - bull spread, 5:295
 - butterfly spread, 5:301, 302
 - call options, 5:280, 281, 285
 - collars, 5:305, 306
 - covered calls, 5:287
 - protected puts, 5:291
 - put options, 5:283–285
 - straddles, 5:308–309
 - Brightman, Christopher J., 5:10
 - Brin, Sergey, 5:32
 - British pound
 - currency code, 3:375
 - currency conversion in loans, 5:370–373
 - in currency pairs, 3:376
 - British Retail Consortium (BRC) survey, 3:61
 - broad market indexes, 3:469; 6:136–137
 - brokerage(s)
 - directed, 1:76
 - prime, 5:55; 6:18
 - brokerage arrangements, 1:76, 79
 - brokered markets, 6:17
 - broker recruiting, 1:107
 - brokers, 6:8, 18
 - bubbles, 2:141–144; 3:31n.31
 - budget constraints, 3:238, 259
 - budget deficits, 3:67–68, 72–73
 - budgeting
 - risk
 - in asset allocation implementation, 3:221
 - asset-only allocation, 3:267–269
 - and risk management, 5:183–185
 - in risk parity-based allocation, 3:310
 - zero-based budgeting process, 6:180
 - buffering, 4:291
 - build-up approach, 3:36–40
 - Bulgaria, 2:304
 - bullet portfolios, 4:107
 - defined, 4:141
 - duration-neutral, 4:151–160, 162–164
 - extreme, 4:173–174
 - structure, 4:141–145
 - bull spreads, 5:293–296
 - “bums problem,” 4:105
 - bundled commissions, 1:257
 - bundled fees, 6:232, 268–269, 287
 - Bureau of Labor Statistics (BLS), 3:13
 - Burgiss, 3:469
 - business assets, 2:389
 - business-continuity planning, 1:252–253
 - business cycle analysis, 3:51–66
 - factors affecting, 3:60–68
 - business investment, 3:61–62
 - consumer spending, 3:61
 - fiscal policy, 3:67–68
 - monetary policy, 3:62–67
 - inflation and deflation in, 3:55–59
 - inventory cycle, 3:51, 52
 - market expectations in, 3:59–60
 - and P/E ratio, 3:96–97
 - and returns for common shares, 3:94
 - stages of business cycle, 3:53–55
- business cycle risk, 2:324
- business cycles
 - and consumer confidence, 3:53, 54
 - defined, 3:51
 - stages of, 3:53–55
- business equity. *see* private equity (private business equity)
- businesses, concentrated positions held in, 2:357–358
- business investment, in business cycle analysis, 3:61–62
- business owners with concentrated positions
 - monetization decision-making process for, 2:336–337, 362–364
 - personal lines of credit for, 2:360–361
 - profile of, 2:358
- business relationships
 - in AMC, 1:245
 - and conflicts of interest, 1:152, 156
- business risk, 5:141n.5
- butterfly portfolios, 4:160–162
- butterfly spreads, 4:129; 5:299–303
- butterfly twists, 4:62
- buy-and-hold strategies
 - indexing vs., 3:466n.5
 - in micro attribution analysis, 6:157
 - in Perold–Sharpe analysis, 6:95–96
 - with stable yield curve, 4:133
- buyers
 - financial, 2:358–359
 - in liquid markets, 6:20
 - strategic, 2:358
- buying convexity (strategy), 4:140–141
- buyout funds, VC funds vs., 5:40
- buy-side clients, 1:31
- buy-side research, 4:323
- buy-side traders, 6:6
- Bylaws and Rules of Procedure for Proceedings Related to Professional Conduct, 1:9
- C**
- CAC 40 (index)
 - assessing manager performance with, 3:471
 - capitalization weighting in, 3:474
 - market sentiment on, 4:93
 - other equity indexes vs., 4:268
 - stock index futures on, 4:275
- CAD/USD. *see* Dollar–Canada market
- Calculation Methodology (GIPS Section I.2)
 - composite return calculation provisions, 6:232–235
 - excerpt of, 6:216
 - external cash flows, 6:226–229
 - inputs, 6:226
 - solutions, 6:226–229
 - further calculation provisions, 6:229–232
 - implementation of, 6:229
 - time-weighted total return, 6:223–226
- calendar-and-percentage-of-portfolio rebalancing, 6:93
- calendar anomalies, 2:35
- calendar rebalancing, 3:224, 312; 6:90
- callable bonds, 4:78–79, 134
- callable debt, removing calls from, 5:398–400
- call options (calls)
 - adding, to noncallable debt, 5:400–403
 - with borrowing, 5:313–318
 - covered, 5:286–290, 294
 - in equity portfolios
 - combinations of puts and, 5:304–312
 - covered, 5:286–290
 - long/short positions for, 5:279–282
 - premiums, 5:159
 - removing, from callable debt, 5:398–400
- call payoffs, 5:312–316
- Calmar ratio, 5:82n.107
- Cambridge Associates, 3:469; 5:37, 38
- Campbell, John Y., 3:390–391, 432
- Canada
 - bankruptcy, 5:101
 - capital gains taxes, 2:228, 240n.5
 - capital loss limits, 2:255
 - CLI, 3:82
 - corporate estate tax freeze, 2:338
 - deemed disposition regimes, 2:298
 - defined-benefit pension plans, 2:473
 - equity indexes, 4:268
 - equity real rates of return, 4:256
 - equity risk premium, 3:39
 - exit taxes, 2:306–307
 - expected returns for equities/bonds, 3:24
 - in Hague Conference, 2:304
 - inflation-linked bonds, 4:9
 - insurance companies, 2:499, 507
 - interest income taxation, 2:233
 - ownership of private business enterprises, 2:322
 - pension funds, 4:255; 5:9
 - real estate allocations, 5:21
 - real estate benchmarks, 5:16
 - real GDP growth rate, 3:32; 4:216
 - REITs, 5:14, 25
 - tax-advantaged savings accounts, 2:246
 - tax rates, 2:179
 - tax regime, 2:231, 347
 - trade partners, 3:84
 - transfer of assets from DB plans, 2:464n.1
 - universal banking, 2:519

- Canadian dollar
 - currency code, 3:375
 - in currency pairs, 3:376, 377n.4
 - currency swaps with, 5:376–377
- cancellation, in prospect theory, 2:25
- candidacy in CFA program, referring to, 1:171–172
- Candidate Pledge, 1:167
- candidates, CFA
 - knowledge of the law [Standard I(A)], 1:26
 - responsibilities of (*see* Responsibilities of CFA Members and Candidates [Standard of Professional Conduct VII])
- CAPE. *see* Cyclically Adjusted P/E Ratio
- Capellas, Michael D., 5:99
- capital. *see specific types, e.g.*: financial capital
- Capital Accord of 1988 (Basel I), 2:523; 5:181
- capital adequacy ratio, 5:181n.49
- capital allocation, risk management in, 5:191–193
- capital asset pricing model (CAPM)
 - and *ex post* SML, 6:168
 - and market behavior, 2:34, 38
 - and market indexes, 3:472, 477
 - market model vs., 6:137n.11
 - validity of, 6:171
- capital assets, 3:195
- capital flows
 - and currency returns, 3:100
 - forecasting approach based on, 3:102
 - and USD/euro exchange rate, 3:103
- capital gains, 2:179
 - accumulation using long- vs. short-term tax rate on, 2:258–260
 - and cost basis, 2:237–238
 - deferred, 2:234–237
 - ETFs and, 4:271
 - and income, 2:181–182
 - and investment policy statements, 2:179
 - pass-through treatment, 4:33
 - and sell disciplines, 4:302
 - taxation of, 3:340, 341; 4:32–34, 256
 - tax provisions for, 2:228
 - in tax regimes, 2:229–231, 347
- capitalization-weighted indexes
 - advantages and disadvantages of, 3:477–478
 - as benchmarks, 3:479–480
 - float-adjusted, 3:479–480
- capitalization weighting, 3:473–474
- capital losses
 - roll-down return and, 4:24
 - tax issues, 4:33, 34
 - tax loss harvesting for, 2:255–258
 - yield curve and, 4:180
- capital market constraints, on
 - concentrated positions, 2:330–331
- capital market expectations (CME), 3:5–124
 - and asset class returns, 3:97–99, 301
 - in business cycle analysis, 3:59–60
 - defined, 3:6
 - economic analysis of, 3:50–103
 - business cycle analysis, 3:51–66
 - and economic forecasting, 3:80–89
 - exogenous shocks in, 3:74–75
 - forecasting asset class returns with, 3:89–104
 - growth trends, 3:68–73
 - information sources for, 3:104–105
 - international interactions in, 3:75–80
 - forecasting of, 3:13–23
 - biases of analyst methods, 3:18–19
 - conditioning information, 3:19–20
 - correlations in, 3:20–21
 - data measurement errors and biases, 3:14–16
 - economic data, 3:13–14
 - and *ex post* risk, 3:18
 - and GNP vs. GDP, 3:14
 - with historical estimates, 3:16–18
 - and model uncertainty, 3:23
 - psychological traps with, 3:21–22
- framework, 3:7–13
 - and expected return estimates, 3:11–12
 - historical analysis in, 3:10
 - and inconsistency of correlation estimates, 3:12–13
 - information requirements, 3:8–10
 - modifying, 3:97–99
 - and negative interest rates, 3:66–67
 - practice problems, 3:108–115
 - setting, 3:23–50
 - with formal tools, 3:23–48
 - and judgment, 3:50
 - with survey and panel methods, 3:48–49
 - solutions to problems, 3:116–124
- Capital Market Line (CML), *ex post*, 6:169
- capital markets. *see also* Integrity of Capital Markets [Standard of Professional Conduct II]
 - anomalies in, 3:23
 - and benefit of ethics to society, 1:12
 - business cycle effects on, 3:53, 54
 - forecasts of, 3:43–45
 - sustainability of, 1:12–13
- capital returns, 6:260, 287
- caplet payoff, 5:323–325, 330, 331
- caplets, 5:323, 324
- CAPM. *see* capital asset pricing model
- caps
 - fee, 4:315
 - floating-rate loan, 5:323–327
- cap weighting, 3:473–474. *see also* capitalization-weighted indexes
- care. *see also* Loyalty, Prudence, and Care [Standard III(A)]
 - and independent professional judgment, 1:210
 - and prudent judgment, 1:245–246
- career development phase (financial stages of life), 2:393
- carried interest, 5:35; 6:266, 287
- carry trades, 3:402–404, 415; 4:134–135
- carve-out segments
 - in composite construction, 6:244–245
- GIPS definition, 6:287
- presentation and reporting of, 6:256
- case studies
 - Susan Fairfax, 2:188–194
- high-wealth-level investor with
 - emotional biases, 2:88–92
 - behaviorally-modified portfolio decision, 2:92
 - diagnostic tests, 2:89–91
 - effect of biases, 2:91
 - moderate or adapt recommendation, 2:91–92
- Inger family, 2:159–162, 164–165, 170–171, 173–175, 177, 178, 184–187, 194–196
- low-wealth-level investor with
 - cognitive biases, 2:92–96
 - behaviorally-modified portfolio decision, 2:96
 - diagnostic tests, 2:93–94
 - effect of biases, 2:95
 - moderate or adapt recommendation, 2:95
- Perrier family, 2:433–440
- violations of ethical standards, 1:197–237
 - consultants, 1:198–202
 - framework for ethical decision-making, 1:197–198
 - Pearl Investment Management, 1:202–213
 - practice problems, 1:214–230
 - solutions to problems, 1:231–237
- cash
 - in asset allocation, 3:245–246
 - in bottom-up portfolio construction, 4:215
 - equitizing, 5:236–237
 - from equity, 5:237–241
 - equity from, 5:232–237
 - forecasts of returns, 3:89–90
 - inflation/deflation effects for, 3:59
 - invested in private equity, 5:44
 - and liquidity, 3:265
 - for liquidity risk management, 4:230
 - synthetic index funds from, 5:233–236
- cash balance plans, 2:463, 483
- cash equivalents, 3:89–90
- cash flow(s)
 - discounted cash flow models, 3:12, 31–35
 - expected future, 2:280–284
 - external (*see* external cash flows)
 - from fixed-income portfolio, 4:8–9
 - large, 6:222, 243n.20, 290
 - of non-insurance companies, 2:512
 - present value of distribution of cash flows methodology, 4:96
 - significant, 6:243n.20
 - uncertainties in, 3:283–284
 - from VC and buy-out funds, 5:40–41
 - volatility of, 2:502
- cash flow at risk (CFAR), 5:170
- cash flow matching, 4:12–13
 - duration matching vs., 4:14
 - for multiple liabilities, 4:64–67
- cash flow yield
 - in interest rate immunization for multiple liabilities, 4:69–71, 73
 - in interest rate immunization for single liability, 4:55–62
 - of ladder bond portfolios, 4:108
- cash-in-advance constraint, 4:65–66

- cashless collars, 2:349–350
 cash management, 2:526–527
 cash market trades, 6:99
 cash receipts, foreign, 5:252, 375–377
 cash-value life insurance, 2:389
 cash values
 inside buildup of, 2:506
 of life insurance, 2:412–413
 casualty insurance companies. *see* non-life insurance companies
 categorization, availability bias and, 2:68
 causality relationships, 3:21
 Cautious investors, 2:169
 Cayman Islands, 2:276
 CBOE. *see* Chicago Board Options Exchange
 CBOT. *see* Chicago Board of Trade
 CCAA. *see* Companies' Creditors Arrangement Act
 CDOs. *see* collateralized debt obligations
 CDs. *see* credit default swaps
 CDX, 4:230
 Celebrity (BB&K classification), 2:110
 cell approach, 4:99
 Center for International Securities and Derivatives Markets (CISDM)
 benchmark indexes, 5:60
 distressed securities subindex, 5:95
 HFRX indexes vs., 5:68
 and subclassifications, 5:61
 central banks
 monetary policy of, 3:56–57, 63; 6:80
 negative interest rates, 3:65
 watching of, 3:90
 Central Europe. *see specific countries*
 certainty equivalents, 2:13
 certainty overconfidence, 2:74–75
 Certificate in Investment Performance Measurement (CIPM) program, 1:9; 6:209n.3
 CFA Centre for Financial Market Integrity, 4:299
 CFA charterholders, 1:171
 CFA designation, 1:171. *see also* Reference to CFA Institute, Designation and Program [Standard VII(B)]
 guidance on using, 1:171
 right to use, 1:175
 stating facts about, 1:176
 CFA examinations, 1:5
 bringing written material into exam room, 1:167
 confidential information in, 1:165–166
 expressing opinions about, 1:166
 grading guidelines and results for, 1:169
 passing, in consecutive years, 1:174–175
 sharing content of, 1:168–169
 sharing questions from, 1:167
 writing after exam period, 1:168
 CFA Institute. *see also specific committees and programs*
 acknowledgment of AMC compliance by, 1:241
 and Code of Ethics, 4:299
 compromising integrity of, 1:169
 ethical commitment of, 1:14–15
 formation of, 6:210
 and GIPS standards, 6:283, 284
 mission of, 1:7
 referring to, 1:171 (*see also* Reference to CFA Institute, Designation and Program [Standard VII(B)])
 values of, 1:15
 website, 1:15, 129
 CFA logo, 1:172–173, 175–176
 CFA marks, use of, 1:172–174
 CFA members and candidates
 knowledge of the law [Standard I(A)], 1:26
 responsibilities of (*see* Responsibilities of CFA Members and Candidates [Standard of Professional Conduct VII])
 CFA Program. *see also* Reference to CFA Institute, Designation and Program [Standard VII(B)]
 conduct restrictions for candidates and members, 1:166
 confidential information about, 1:165–166
 stating facts about, 1:176
 testing policies for, 1:167
 CFAR. *see* cash flow at risk
 CFCs. *see* controlled foreign corporations
 CFTC. *see* US Commodity Futures Trading Commission
 chain-linking process, 6:127–128
 chairs, committee, 2:137
 changes
 in asset risk attributes, 6:79
 fund mandate, 1:142
 to investment process, 1:142–144
 in net worth, 6:68
 organizational, 1:258
 personnel, 1:258
 regime, 3:17–18
 in regulations, 6:70–71
 in wealth, 6:68, 72–77
 Chapter 7 bankruptcy, 5:94, 101, 102
 Chapter 11 bankruptcy, 5:94, 101, 102
 charitable gratuitous transfers, 2:298–299
 charitable remainder trusts (CRT), 2:287–288
 charitable trusts, 2:368
 Chartered Financial Analyst. *see entries beginning CFA*
 cheapest-to-deliver bond, 5:221
 cheapest-to-deliver (CTD) security, 4:74–75
 checklist approach to economic forecasting, 3:86–89
 CHF/EUR. *see* Euro-Swiss market
 CHF/USD. *see* Dollar-Swiss market
 Chicago Board of Trade (CBOT)
 and changes in forwards/futures markets, 6:10
 municipal bond futures, 5:226n.16
 US Treasury bond futures, 5:221
 Chicago Board Options Exchange (CBOE), 3:472; 4:104
 Chicago Mercantile Exchange (CME)
 and ETFs, 4:103
 forwards traded on, 3:410–411
 and S&P 500 futures, 4:274
 SPAN system of, 5:171
 and Treasury futures contracts, 4:82
 children
 forced heirship rules, 2:274–276
 gifts to, 2:182, 184
 Chile
 degree of specialization, 3:75
 in Hague Conference, 2:304
 inflation-linked bonds, 4:9
 market integration, 3:43
 regulatory constraints, 3:335
 sovereign wealth funds, 3:338
 tax-advantaged savings accounts, 2:246
 tax rates, 2:179
 Chilean peso, 3:438
 China
 Cobb-Douglas model for economic growth, 3:126, 128–131
 economic experience, 3:128–129
 economic slowdown, 4:220
 future economic growth, 3:130–131
 in Hague Conference, 2:304
 historical growth accounting, 3:128
 H-model for estimating P/E, 3:132–139
 home ownership, 2:388
 interest income taxation, 2:233
 investment real estate, 2:324
 macroeconomic linkages, 3:75
 pension funds in, 3:335
 regulatory constraints in, 3:335
 REITs, 5:14
 tax rates, 2:179
 tax regime, 2:231, 347
 TFP growth, 3:71
 trade partners, 3:83, 84
 China Industrial Production index, 3:83
 Chinese yuan, 3:375, 440; 4:236
 CIPM program. *see* Certificate in Investment Performance Measurement program
 CISDM. *see* Center for International Securities and Derivatives Markets
 CISDM Convertible Arbitrage Index, 5:64–66, 68
 CISDM CTA EW Index
 commodities correlations, 5:48, 50
 hedge fund correlations, 5:62–63
 managed futures correlations, 5:87–89, 91
 CISDM CTA trading strategy
 benchmarks, 5:86–89
 CISDM Distressed Securities Index, 5:64–66, 68
 CISDM Equal Weighted Hedge Fund Index
 as benchmark, 5:60
 commodities correlations, 5:48, 50
 correlations, 5:65
 HFRX indexes vs., 5:68
 historical performance, 5:64
 real estate correlations, 5:17–18
 CISDM Equity Long/Short Index, 5:64–66, 68
 CISDM Equity Market Neutral Index, 5:64–66, 68
 CISDM Event Driven Multi-Strategy Index, 5:64–66, 68

- CISDM Global Macro Index, 5:64–66
 CISDM Hedge Funds, 5:66
 CISDM Merger Arbitrage Index, 5:64–66, 68
 Citibank, 2:520
 Citicorp, 2:520
 Citigroup, 4:95. *see also* S&P/Citigroup indexes
 Citigroup Broad Investment-Grade (US BIG) Bond Index, 4:155; 6:136
 Citi Non-US World Government Bond Index, 3:44
 civil law systems, 2:274, 300, 302
 clawback provisions, 2:275; 5:35
 client commission practices, 1:78–80
 client–plan participants, identifying, 1:78
 clients
 adviser relations with (*see* adviser-client relations)
 approval from, 1:77
 buy-side, 1:31
 communication with (*see* Communication with Clients and Prospective Clients [Standard V(B)])
 disclosure of conflicts to, 1:150–151
 duties to (*see* Duties to Clients [Standard of Professional Conduct III])
 elective professional clients, 3:325
 fair dealing with, 1:90
 gifts and entertainment from, 1:39
 goals of, 3:293–295
 identifying, 1:75, 80–81, 93
 informing, of investment process, 1:138–139
 interests of, 1:78, 244–245; 6:47–49
 loyalty to, 1:81 (*see also* Loyalty to Clients [AMC Part A])
 maintaining lists of, 1:85
 priority of personal trading vs. trading for, 1:157
 risk profile of, 1:91
 select, additional services for, 1:88
 soliciting former, 1:109–114
 status of, 1:102
 client updates, 1:131–132
 CLOs. *see* collateralized loan obligations
 closed-book markets, 6:11
 closed-end funds, 5:14; 6:259, 287
 closeout netting, 5:188
 closing out of transactions prior to expiration, 2:342
 CLSs. *see* continuously linked settlements
 CMBSSs. *see* commercial mortgage-backed securities
 CME. *see* capital market expectations; Chicago Mercantile Exchange
 CME Group
 and ETFs, 4:103–104
 T-notes futures contracts, 4:73, 74, 76
 CML, *ex post*. *see* Capital Market Line, *ex post*
 CMOs. *see* collateralized mortgage obligations
 CNA Financial Corporation, 2:515, 516
 Cobb-Douglas production function (Cobb-Douglas model), 3:126–130
 for Chinese economic growth, 3:126, 128–131
 and neoclassical approach to growth accounting, 3:126–127
 projections of economic growth from, 3:130–131
 Coca-Cola, 4:278
 Code of Ethics (CFA Institute), 1:5–16; 4:299
 adoption of, 1:10
 and applicable law, 1:22–23
 evolution of, 1:6–7
 and importance of ethics, 1:11–15
 notification of, 1:114
 and Professional Conduct Program, 1:9–10
 soft dollar policies in, 6:29
 and Standards of Practice Council, 1:10–11
 in *Standards of Practice Handbook*, 1:3, 5–7
 text of, 1:15–16
 and values of CFA Institute, 1:15
 codes of ethics (in general)
 adopting, 1:120
 commitment to, 1:14
 developing, 1:26–27, 54
 codification, in prospect theory, 2:25
 cognitive cost, 2:58
 cognitive dissonance, 2:52, 125–126
 cognitive errors, 2:52–69
 of analysts, 2:125
 anchoring and adjustment bias, 2:63–64
 availability bias, 2:67–69
 in behavioral finance, 2:166
 belief perseverance biases, 2:52–63
 confirmation bias, 2:55–56
 conservatism bias, 2:52–55
 hindsight bias, 2:62
 illusion of control bias, 2:61
 representativeness bias, 2:56–60
 in BFM, 2:7–8
 confirmation bias, 2:55–56
 conservatism bias, 2:52–55
 defined, 2:50
 emotional biases vs., 2:51–52
 framing bias, 2:65–67
 hindsight bias, 2:62
 illusion of control bias, 2:61; 3:362–363
 information-processing biases, 2:63–69
 anchoring and adjustment bias, 2:63–64
 availability bias, 2:67–69
 framing bias, 2:65–67
 mental accounting bias, 2:64–65
 of investors with concentrated positions, 2:332
 investors with emotional biases and, 2:117
 low-wealth-level investor case study, 2:92–96
 behaviorally-modified portfolio decision, 2:96
 diagnostic tests, 2:93–94
 effect of biases, 2:95
 moderate or adapt recommendation, 2:95
 mental accounting bias, 2:64–65
 representativeness bias, 2:56–60
 coinsurance (health insurance), 2:403n.3, 421
 collars, 2:330n.1
 cashless, 2:349–350
 debit, 2:350
 defined, 5:292, 304
 in equity portfolios, 5:304–307
 with floating-rate loans, 5:329–333
 swaption, 4:84–87, 89
 zero-premium, 2:349–350; 6:77
 collateral
 exhaustion of, 4:90
 managing credit risk with, 5:187
 collateralized debt obligations (CDOs), 1:114; 4:239–240
 collateralized loan obligations (CLOs), 4:239
 collateralized mortgage obligations (CMOs), 4:137n.8
 collectibles, 2:389
 collision coverage, for automobile insurance, 2:420
 Colombia
 deemed disposition regimes, 2:298
 gift tax, 2:293
 interest income taxation, 2:233
 tax regime, 2:231, 347
 wealth taxes, 2:238, 306
 combination, in prospect theory, 2:25
 combined ratio, 2:514
 commercial mortgage-backed securities (CMBSSs), 4:237, 238
 commingled real estate funds (CREFs), 5:14–15
 commissions
 and AMC, 1:249–250
 client, 1:78–80
 disclosure of, 1:257
 soft, 1:76, 250, 257
 and transaction costs, 6:28–30
 commitment
 to GIPS, 6:215
 for private equity investments, 5:34–35, 39, 43
 commitment period, 5:43
 committed capital, 6:259, 265, 287
 committee decision making, 2:136–138
 investment committee dynamics, 2:137
 techniques for structuring and operating committees, 2:137–138
 Committee for Performance Presentation Standards (CPPS), 6:210, 283
 Committee of Sponsoring Organizations of the Treadway Commission, 5:139n.3
 commodities, 5:45–55
 benchmarks, 5:47–48
 defined, 5:7, 45
 in emerging market indexes, 4:235
 historical performance, 5:48–50
 interpretation issues, 5:51
 investment characteristics, 5:51–53
 market for, 5:46–47
 in portfolios, 5:53–55
 types of, 5:46–47

- commodity currencies, 3:439
 - Commodity Futures Trading Commission, 5:226n.16
 - commodity market, 5:46–47
 - commodity pool operators (CPOs), 5:85
 - commodity pools, 2:526
 - commodity trading advisors (CTAs), 5:45
 - and characteristics of managed futures, 5:90
 - in Chicago Mercantile Exchange, 3:411
 - historical performance of, 5:87–89
 - performance persistence, 5:92
 - registration of, 5:85
 - common law systems, 2:274, 300
 - Common Progressive Tax Regime, 2:229–231, 347
 - common shares (common stock)
 - earnings of, 3:93–96
 - strategic asset allocation for, 3:346–348
 - common stock to surplus ratio, 2:512–513
 - communication(s)
 - in AMC, 1:255
 - in case study, 1:201
 - with client, 5:11
 - different forms of, 1:139
 - electronic communications networks, 6:16
 - to employees of material nonpublic information, 1:63
 - FIX technology, 6:41
 - of GIPS Advertising Guidelines, 6:273–274
 - interdepartmental, 1:61
 - Communication with Clients and Prospective Clients [Standard V(B)]
 - application of the standard, 1:141–146
 - case study, 1:212
 - compliance procedures, 1:140–141
 - eleventh edition revision, 1:8
 - guidance, 1:138–140
 - different forms of communication, 1:139
 - facts vs. opinions in reports, 1:140
 - identifying risks and limitations of analysis, 1:139–140
 - informing clients of investment process, 1:138–139
 - report presentation, 1:140
 - text of, 1:18, 137–138
 - community foundations, 2:484–485
 - community property regimes, 2:275–276
 - companies. *see also specific companies by name*
 - enhanced derivative product, 5:188
 - as estate planning tools, 2:303
 - expansion-stage, 5:30
 - formative-stage, 5:30
 - fund management, 5:184–185
 - insurance (*see insurance companies*)
 - public, 1:33
 - public limited, 5:35
 - stock, 2:499
 - trust, 2:183
 - Companies' Creditors Arrangement Act (CCAA), 5:101
 - company promotion, 1:69
 - company-specific risk, with
 - concentrated positions, 2:325–326
 - company-sponsored foundations, 2:484–485
 - company stock, 2:122–123
 - and confirmation bias, 2:56
 - in defined-contribution pension plans, 2:478
 - in 401(k) plans, 2:484n.9
 - personal lines of credit secured by, 2:360–361
 - comparable data, in forecasting, 2:128–129
 - compensation. *see also* Additional Compensation Arrangements [Standard IV(B)]
 - bonus, 1:116–117
 - and conflict of interest, 1:153–154
 - disclosure of, 1:77
 - externally compensated assignments, 1:113
 - notification of, 1:116–117
 - outside, 1:117
 - and research independence, 1:40
 - competence, 1:54
 - competition
 - and government structural policies, 3:73
 - perfect, 2:12
 - policies on, 1:109, 112
 - in private equity evaluation, 5:43
 - completeness, market index, 3:475
 - Completeness axiom (utility theory), 2:9
 - completeness funds, 4:312–313
 - completeness portfolios, 2:355
 - completion, assurity of, 6:9
 - complex models, forecasting with, 2:127
 - compliance. *see also* Fundamentals of Compliance (GIPS Section I.0)
 - claiming (with AMC), 1:241
 - using benchmarks to demonstrate, 3:468
 - compliance officers, 1:36, 251
 - compliance procedures
 - adequate, 1:119–121
 - adoption of, 1:120
 - for AMC, 1:250–251
 - in case studies, 1:202
 - inadequate, 1:124
 - as responsibility of supervisors, 1:120–121
 - component returns, 6:260–261
 - composite construction
 - misrepresentation of, 1:52
 - in verification process, 6:279
 - in wrap fee/SMA provisions, 6:269
 - Composite Construction (GIPS Section I.3), 6:235–245
 - carve-out segments, 6:244–245
 - defining investment strategies, 6:238–241
 - excerpt of, 6:216
 - implementation of, 6:236, 237, 240, 242, 245
 - including and excluding portfolios, 6:241–244
 - qualifying portfolios, 6:235–238
 - composite creation date, 6:247, 288
 - composite definition
 - GIPS definition, 6:288
 - GIPS provisions on, 6:238–241, 247n.23, 269–270
 - composite descriptions, 6:247, 288
 - composite return calculation provisions, 6:232–235
 - composites
 - defined, 6:208n.2, 287
 - disclosures related to, 6:247–248
 - non-fee paying portfolios in, 6:256
 - compounded returns, 2:287
 - compounding, 2:235, 502
 - comprehensive coverage, for automobile insurance, 2:420
 - comprehensive major medical insurance, 2:421
 - concave strategies, 6:97–98
 - concentrated portfolios, diversifying, 5:380–382
 - concentrated single-asset positions, 2:321–379
 - asset classes involved in, 2:323–324
 - defined, 2:323
 - global perspective on management, 2:322–323
 - investment real estate, 2:366–369
 - investment risks, 2:324–327
 - management principles, 2:327–340
 - asset location and wealth transfers, 2:337–340
 - capital market constraints, 2:330–331
 - decision-making process, 2:332–337, 340, 362–364
 - goal-based planning, 2:334–337
 - institutional constraints, 2:329–330
 - investor constraints, 2:328–329
 - objectives, 2:327–328
 - psychological considerations, 2:331–334
 - monetizing, 2:322
 - practice problems, 2:372–375
 - private business equity, 2:356–366
 - about, 2:356–357
 - business owner profile, 2:358
 - business profile, 2:357–358
 - monetization strategies, 2:358–366
 - single-stock positions, 2:340–356
 - about, 2:340–341
 - management strategies, 2:343–356
 - non-tax considerations, 2:342–343
 - tax considerations, 2:341–342
 - solutions to problems, 2:376–379
- concentrated stock positions, 3:364; 6:77–79
- concurrent returns, expected value of, 2:198
- conditional 1/n diversification, 2:122
- conditional probability. *see* Bayes' formula
- conditional value at risk (CVaR), 3:365–366
- conditioning information, 3:19–20
- Conduct as Participants in CFA Institute Programs [Standard VII(A)], 1:19, 165–169
 - application of the standard, 1:167–169
 - eleventh edition revision, 1:8
 - guidance, 1:165–167
 - additional CFA restrictions, 1:166
 - confidential program information, 1:165–166
 - expressing opinions, 1:166
 - text of, 1:19, 165

- Conference Board
 - economic indicators published by, 3:82, 104
 - LEI index by, 3:84, 85
 - confidence band, quality control chart, 6:173
 - confidence intervals, 2:74, 126
 - confidential information
 - about firms, 1:115
 - in AMC, 1:245
 - conveying, 1:205
 - disclosing, 1:103–105
 - possessing, 1:103
 - confidentiality. *see also* Preservation of Confidentiality [Standard III(E)]
 - of CFA program information, 1:165–166
 - maintaining, 1:78
 - confirmation
 - of information, 1:251–252
 - of transactions, 1:160
 - confirmation bias, 2:55–56, 332
 - of analysts, 2:133
 - consequences of, 2:55–56
 - detection and methods of overcoming, 2:56
 - diagnostic questions, 2:88
 - and market bubbles, 2:143
 - confirming evidence trap, 3:21
 - conflicts of interest
 - in AMC, 1:255–256
 - avoidance of, 1:200
 - and business relationships, 1:152, 156
 - and business stock ownership, 1:152
 - in case studies, 1:199–201
 - and compensation arrangement, 1:153–154
 - and directorship, 1:154–155
 - disclosure of (*see also* Disclosure of Conflicts [Standard VI(A)])
 - in AMC, 1:255–256
 - firm policies, 1:77
 - and personal stock ownership, 1:153
 - and personal trading, 1:155
 - potential, in ethical decision-making framework, 1:200
 - and priority of transactions, 1:157
 - and requested favors, 1:155
 - Conflicts of Interest [Standard of Professional Conduct VI], 1:149–164
 - Disclosure of Conflicts [Standard VI(A)], 1:149–156
 - application of the standard, 1:152–156
 - compliance procedures, 1:152
 - guidance, 1:149–152
 - text of, 1:18, 149
 - Priority of Transactions [Standard VI(B)], 1:157–162
 - application of the standard, 1:160–162
 - case study, 1:204
 - compliance procedures, 1:158–160
 - guidance, 1:157–158
 - text of, 1:18, 157
 - Referral Fees [Standard VI(C)], 1:162–164
 - application of the standard, 1:162–164
 - compliance procedures, 1:162
 - guidance, 1:162
 - text of, 1:18, 162
 - Congressional Budget Office, 3:105
 - conjunction fallacy, 2:133, 135
 - conservatism bias, 2:52–55, 87, 332
 - consistency
 - of investment approach, 2:118
 - macro-, 3:477
 - of performance evaluations, 5:82–84
 - consistent growth investment style, 4:280
 - constant growth model. *see* Gordon growth model
 - constant-mix strategies, 6:96
 - constant-proportion (CPPI) strategies, 6:97
 - constant returns to scale, 3:127
 - constraints (generally)
 - budget, 3:238, 259
 - cash-in-advance, 4:65–66
 - on concentrated positions, 2:330–331
 - guideline, 4:225
 - for institutional investors, 6:71
 - in investment policy statements, 3:184
 - long-only investing, 4:299–300
 - minimum size, 2:343
 - of pension participants, 2:478–479
 - unity, 3:238
 - constraints in asset allocation, 3:322–340
 - asset size, 3:322–327
 - beyond budget constraints, 3:259
 - liquidity, 3:327–330
 - regulatory and other external constraints, 3:334–340
 - endowments and foundations, 3:337–338
 - insurance companies, 3:335
 - pension funds, 3:335–337
 - sovereign wealth funds, 3:338
 - revising strategic asset allocation for change in, 3:350–351
 - time horizon, 3:330–334
 - constraints of individual investors, 2:176–187
 - asset allocation based on, 2:193, 194
 - and asset location, 2:253–254
 - case study, 2:186–187
 - with concentrated positions, 2:328–329
 - in investment policy statements, 1:93
 - legal and regulatory environment, 2:182–185
 - and asset allocation, 3:334
 - family foundation, 2:184–185
 - jurisdiction, 2:185
 - personal trust, 2:183–184
 - for small asset owners, 3:325
 - liquidity, 2:176–178
 - in sample IPSs, 2:186–187, 190–191
 - taxes, 2:179–182
 - early transfers, 2:182
 - tax avoidance, 2:181
 - tax deferral, 2:181
 - tax reduction, 2:181–182
 - transfer at death, 2:182
 - wealth transfer taxes, 2:182
 - time horizon, 2:178
 - unique circumstances, 2:185
- consultants
 - benchmarks for, 3:467
 - case study, 1:198–202
 - pension fund, 4:277
- consumable (transformable) assets, 3:195
- consumer confidence, business cycle and, 3:53, 54
- consumer credit, 4:239
- Consumer Cyclical Services, 4:239
- consumer nondurables, 6:158
- Consumer Price Index. *see* US Consumer Price Index (CPI)
- consumers
 - comparison of life insurance costs for, 2:413–415
 - and economic growth trends, 3:69–70
 - income growth for, 3:81
- consumer spending
 - and business cycle, 3:60, 61
 - in business cycle analysis, 3:60, 61
 - in econometric modeling, 3:81
 - in United Kingdom, 3:49
- consumption
 - behavioral approach to, 2:37–38
 - and self-control bias, 2:76–77
 - taxes on, 2:226
- contagion, in emerging markets, 3:439–440
- contingent immunization, 4:14, 77–78
- contingent liabilities, 3:273
- Continuity axiom (utility theory), 2:9
- continuous auction markets, 6:16
- continuously linked settlements (CLSs), 5:146
- contract risk, 5:147–148
- contracts. *see also* forwards (forward contracts); futures (futures contracts)
 - assurity of, 6:20
 - employment, 5:44
 - guaranteed investment, 2:504
 - restrictions on concentrated positions in, 2:330
 - service, 2:422
- contrarian investment style, 4:279
- control(s). *see also* illusion of control
 - bias; self-control bias
 - drawdown, 3:302
 - of emotions, 2:51
 - of family limited partnerships, 2:297–298
 - quality control charts, 6:171–175
 - of trusts, 2:300
 - voting, 2:328
- controlled foreign corporations (CFCs), 2:303
- convenience, market liquidity and, 6:20
- convenience yield, commodity, 5:52
- convertible arbitrage hedge fund strategies, 5:57
- convexity
 - of butterflies, 4:160–161
 - buying, 4:140–141
 - defined, 4:130–131; 5:152
 - effective, 4:131, 221–222
 - of investment strategies, 6:97–98
 - negative, 4:134
 - portfolio, 3:421
 - and securities with embedded options, 4:168–169
 - selling, 4:134
 - yield curve strategies, 4:130–132
 - for zero-coupon bonds, 4:131
- copayments (health insurance), 2:403n.3, 421
- copies, maintaining, 1:47

- core capital, 2:278–288
 - defined, 2:279
 - Monte Carlo estimation, 2:285–288
 - mortality table estimation, 2:280–284
- core hedge, 3:434
- core investment style, 4:280–281
- core real estate strategies, 6:261
- core-satellite investing, 4:309–312; 5:13
- corner portfolios, 3:243n.6
- corporate bond portfolios
 - credit mitigation risk, 4:194
 - credit risk, 4:193–194
 - interest rate risk, 4:195–198
 - liquidity and trading, 4:198–199
 - spread risk, 4:194–195
- corporate form (private equity funds), 5:35
- corporate governance, 5:139; 6:71
- corporate risk management, 2:476–477
- corporate share of income, 2:506
- corporate venturing, 5:32
- correction, of unintentional errors, 1:48
- correlation analysis, personality typing of investors and, 2:170
- correlations
 - of assets
 - in asset-only allocation, 3:240–241
 - inconsistency of estimates, 3:12–13
 - judgment in estimates, 3:50
 - misinterpretations of, 3:20–21
 - nonlinear, 3:20
 - partial, 3:20
 - in portfolio rebalancing, 3:313
 - and taxation estimates, 3:342
 - default, 4:239–240
 - as performance appraisal measures, 5:82
 - in scenario analysis, 4:232
- corridors for asset classes, 6:91–93
- cost(s)
 - cognitive, 2:58
 - delay, 6:23, 25
 - explicit, 6:25
 - “gaming” of cost measures, 6:23, 24
 - hedging, 3:420–428
 - example, 3:426–428
 - exotic options, 3:424–425
 - over-/under-hedging with forward contracts, 3:421
 - protective puts with OTM options, 3:422
 - put spreads, 3:422–423
 - risk reversal, 3:422
 - seagull spreads, 3:423–424
 - life insurance, 2:413–415
 - missed trade opportunity, 6:23, 25
 - nonfinancial, 6:84
 - opportunity, 3:392; 4:302; 6:23, 25
 - of portfolio rebalancing, 6:84, 88–89
 - replacement, 2:418–419
 - sell disciplines based on, 4:302
 - in strategic currency decisions, 3:391–392
 - trading, 6:21–32
 - for currency hedging, 3:391–392
 - econometric models for costs, 6:30–32
 - with emerging market currencies, 3:438–440
 - transaction cost components, 6:22–30
 - in trading focus, 6:38–40
 - transaction
 - with active management, 4:17, 22
 - with cash flow matching, 4:12
 - components of, 6:22–30
 - econometric model for, 6:30–32
 - with indexed portfolios, 4:270–272
 - and liquidity, 2:176
 - of portfolio rebalancing, 3:314–315; 6:88–89
- cost arrangements, restricting, 1:36
- cost basis, 2:235, 237–238, 329
- cost–benefit approach, 3:225
- costless hedge, 3:389n.10
- cost of living rider, for disability income insurance, 2:418
- costs-are-not-important trading focus, 6:38, 40
- countercyclical premiums, 6:81
- counterparty credit risk, 2:342; 4:89–90
- counterparty risk, 4:31
- country risk
 - in emerging markets, 3:77–80
 - exposure to, 4:222–223
- Country Version of GIPS (CVG), 6:211
- covariance
 - estimating, 3:28, 29
 - and risk of equities, 5:228
 - two-layer factor approach for modeling, 3:30
- covariance matrix
 - factor, 3:28–30
 - multifactor model for estimating, 3:28–31
 - shrinkage estimator of, 3:25–26
 - target, 3:25–26
- coverage
 - benchmark, 6:143
 - insurance, 2:420
 - prior, 1:38
- covered bonds, 4:240
- covered calls, 5:286–290, 294
- cover pool, 4:240
- Cowles, Alfred, 2:31–32
- CPI. *see* US Consumer Price Index
- CPI-U. *see* US Consumer Price Index for All Urban Consumers
- CPOs. *see* commodity pool operators
- CPPI strategies. *see* constant-proportion strategies
- CPPS. *see* Committee for Performance Presentation Standards
- cram down, 5:101
- crashes, market, 2:141–144
- creation units, 4:102
- credit(s). *see also* credit strategies
 - consumer, 4:239
 - and foundation/endowment investments, 3:338
 - mortality, 2:427, 429–430
 - personal lines of, 2:360–361
 - standards for, 5:188
- credit cycle, 4:216, 233
- credit default swaps (CDSs)
 - and credit risk, 5:189
 - index derivatives, 4:230–231
 - for liquidity risk management, 4:230–231
 - as tail risk hedge strategy instrument, 4:232–233
- credit derivatives, 5:142n.7, 189
- credited rates, 2:500
- credit losses, 4:24, 205
- credit loss rate, 4:193–195
- credit market, secondary
 - bid–ask spreads in, 4:228–229
 - evaluating liquidity in, 4:226–229
 - spread sensitivity to fund outflows, 4:227–228
 - trading volume in, 4:226–227
- credit method of eliminating double taxation, 2:307
- credit mitigation risk, 4:194
- credit portfolios
 - construction of (*see* credit strategies)
 - defined, 4:191
 - international, 4:233–236
 - currency risk, 4:236
 - emerging markets credit, 4:235
 - legal risk, 4:236
 - liquidity considerations, 4:236
 - relative value in, 4:233–235
 - liquidity risk in, 4:226–231
 - management of, 4:230–231
 - secondary market measures, 4:226–229
 - structural industry changes, 4:229–230
- credit quality
 - in emerging markets, 4:235
 - measures of, 4:217–219
 - regional differences, 4:233
 - in top-down approach to credit strategy, 4:216–219
- credit rating agency opinions, 1:33–34
- credit ratings, in top-down strategy, 4:217–218
- credit-related risks, 4:200, 207–208
- credit risk, 2:517n.28
 - in corporate bond portfolios, 4:193–194
 - counterparty, 2:342; 4:89–90
 - current, 5:173
 - and G-spread/I-spread evaluation, 4:202
 - identifying, 5:142–143
 - for insurance companies, 2:502
 - and investments for banks, 2:522
 - managing, 5:186–189
 - with collateral, 5:187
 - with credit derivatives, 5:189
 - by limiting exposure to credit risk, 5:186
 - by marking to market, 5:186, 187
 - with netting, 5:187–188
 - reducing, 5:186–189
 - with standards and enhanced derivative product companies, 5:188
 - transferring, 5:189
 - measuring, 5:173–180
 - calculating exposures, 5:178–179
 - of forward contracts, 5:176
 - option-pricing theory, 5:174–176
 - of options, 5:178–180
 - of swaps, 5:177
 - in repo agreement, 4:30
- credit spread forwards, 5:189
- credit spread options, 5:189

- credit spreads, 3:201; 4:200–206
 - benchmark spread, 4:200
 - changes as factor in credit quality decisions, 4:216
 - excess return, 4:205–206
 - G-spread, 4:200–201
 - and interest rate risk, 4:195
 - I-spread, 4:202
 - measures in portfolio context, 4:204
 - OAS, 4:203
 - Z-spread, 4:203
- credit strategies, 4:206–225
 - about, 4:191–192
 - bottom-up, 4:206–215
 - dividing the credit universe, 4:206–207
 - portfolio construction, 4:214–215
 - relative value analysis, 4:207–211
 - spread curves, 4:211–214
 - top-down vs., 4:224
 - corporate bond portfolios
 - credit mitigation risk, 4:194
 - credit risk, 4:193–194
 - interest rate risk, 4:195–198
 - liquidity and trading, 4:198–199
 - spread risk, 4:194–195
 - credit spreads, 4:200–206
 - benchmark spread, 4:200
 - excess return, 4:205–206
 - G-spread, 4:200–201
 - I-spread, 4:202
 - measures of, 4:200–204
 - OAS, 4:203
 - Z-spread, 4:203
 - ESG considerations, 4:225
 - international portfolios, 4:233–236
 - currency risk, 4:236
 - emerging markets credit, 4:235
 - legal risk, 4:236
 - liquidity considerations, 4:236
 - relative value, 4:233–235
 - liquidity risk, 4:226–231
 - management of, 4:230–231
 - secondary market measures, 4:226–229
 - structural industry changes, 4:229–230
 - practice problems, 4:243–247
 - solutions to problems, 4:248–249
 - structured financial instruments, 4:236–241
 - asset-backed securities, 4:239
 - CDOs, 4:239–240
 - covered bonds, 4:240
 - MBS, 4:237–238
 - tail risk, 4:231–233
 - assessing, 4:231–232
 - managing, 4:232–233
 - scenario analysis, 4:231–232
 - top-down, 4:215–223
 - bottom-up vs., 4:224
 - country/currency exposure, 4:222–223
 - credit quality, 4:216–219
 - industry sector allocation, 4:220–221
 - interest rate measurement/management, 4:221–222
 - spread curves in, 4:223
- Credit Suisse, 5:60, 95
 - Credit Suisse First Boston, 5:32
 - Credit Suisse Hedge Fund Index, 5:60, 61
 - Credit Suisse/Tremont, 3:469
 - Credit Suisse/Tremont Investable Managed Futures Index, 5:89
 - Credit Support Annexes (CSAs), 3:410n.23; 4:89–90
 - credit tranching, 4:239
 - credit universe
 - in bottom-up approach to credit strategy, 4:206–207
 - in emerging markets, 4:235
 - credit value at risk (credit VaR), 5:174
 - CREFs. *see* commingled real estate funds
 - Croatia, 2:304
 - cross-border estate planning, 2:303–311
 - Hague Conference, 2:304–305
 - taxes, 2:305–310
 - double taxation, 2:307–310
 - exit taxes, 2:306–307
 - foreign tax credit provisions, 2:307–308
 - income taxes, 2:305–306
 - wealth and wealth transfer taxes, 2:306
 - transparency and offshore banking, 2:310–311
 - cross-default provisions, 5:173–174
 - cross-departmental conflicts, 1:151
 - cross hedging
 - currency, 3:428–430
 - risk management with, 2:355–356
 - cross-sectional momentum, 3:358n.21
 - crowding risk, 4:135
 - crowds, committees vs., 2:137–138
 - CRT. *see* charitable remainder trusts
 - CSAs. *see* Credit Support Annexes
 - CTA managed accounts. *see* managed futures
 - CTAs. *see* commodity trading advisors
 - CTD security. *see* cheapest-to-deliver security
 - cumulative composite returns, calculating, 6:258
 - currency(-ies)
 - base, 3:375–377
 - commodity, 3:439
 - in country risk analysis, 3:78–79
 - domestic, 3:381
 - emerging market, 3:438–441
 - forecasts of returns, 3:99–100
 - foreign, 3:382
 - funding, 3:404
 - haven, 3:439
 - home (domestic), 3:381
 - investment, 3:404
 - price, 3:375–377
 - currency codes, 3:375
 - currency conversions
 - and exchange rate risk, 5:370–377
 - of foreign cash receipts, 5:375–377
 - of loans, 5:370–375
 - currency exposure
 - international, 3:381–384
 - and portfolio returns, 3:381–386
 - international exposure, 3:381–384
 - risk and return, 3:381–386
 - volatility of returns, 3:384–385
 - strategic decisions about, 3:389–392
 - cost considerations, 3:391–392
 - diversification considerations, 3:389–391
 - with top-down approach, 4:222–223
 - currency gains/losses, 4:24
 - currency hedging, 5:362
 - costs, 3:392, 420–428
 - example, 3:426–428
 - exotic options, 3:424–425
 - over-/under-hedging with forward contracts, 3:421
 - protective puts with OTM options, 3:422
 - put spreads, 3:422–423
 - risk reversals, 3:422
 - seagull spreads, 3:423–424
 - discretionary, 3:393
 - for fixed-income portfolios, 3:390
 - and market conditions, 3:390–391
 - multiple currencies, 3:428–433
 - cross hedges, 3:428–430
 - macro hedges, 3:430
 - minimum-variance hedge ratio, 3:431–433
 - over- and under-, 3:421
 - passive, 3:393
 - and time horizons, 3:389–390
 - currency managed futures, 5:86
 - currency management, 3:373–461
 - currency risk and portfolio return/risk, 3:381–386
 - emerging market currencies, 3:438–441
 - non-deliverable forwards, 3:440–441
 - trading costs and extreme market events, 3:438–440
 - foreign exchange markets, 3:374–381
 - currency options markets, 3:381
 - forward markets, 3:377–380
 - spot markets, 3:375–377
 - swap markets, 3:380–381
 - formulating programs for, 3:396–398
 - globalization and, 3:373–374
 - portfolio return, 3:381–386
 - and international exposure, 3:381–384
 - and risk, 3:381–386
 - volatility of, 3:384–385
 - practice problems, 3:445–453
 - solutions to problems, 3:454–461
 - strategic decisions, 3:387–398
 - currency exposures, 3:389–392
 - currency risk, 3:392–396
 - formulating currency management programs, 3:396–398
 - in Investment Policy Statements, 3:387–388
 - portfolio optimization, 3:388–389
 - tactical decisions, 3:399–409
 - carry trade in, 3:402–404
 - economic fundamentals in, 3:399–400
 - example, 3:407–409
 - technical analysis in, 3:401–402
 - volatility trading in, 3:404–409
 - tools, 3:409–438
 - “correct” approach, 3:434–438
 - currency options, 3:406–407, 417–420

- forward contracts, 3:410–417
 - hedging multiple currencies, 3:428–433
 - reduction of hedging costs, 3:420–428
 - currency options, 3:381, 406–407, 417–421
 - currency overlay programs, 3:394–396
 - currency risk. *see also* currency exposure; currency management
 - asset allocation with, 3:389
 - forward and futures strategies for managing, 5:250–258
 - in global credit portfolios, 4:236
 - and portfolio return/risk, 3:381–386
 - risk of foreign currency payments, 5:252–254
 - risk of foreign currency receipts, 5:252
 - risk of foreign-market asset portfolio, 5:254–258
 - strategic decisions about, 3:392–396
 - active currency management, 3:393–394
 - currency overlay programs, 3:394–396
 - discretionary hedging, 3:393
 - passive hedging, 3:393
 - and top-down approach, 4:222–223
 - currency swaps. *see also* interest rate swaps
 - in global credit portfolios, 4:236
 - interest rate vs., 5:374
 - notional principal in, 5:179–180
 - current account deficits, 3:78–79, 102–103
 - current account receipts, 3:79
 - current assets, 2:386
 - current credit risk, 5:173
 - curvature, yield curve
 - changes in, 4:135–145
 - defined, 4:129
 - custodial relationships, 1:32
 - custodians, 1:32; 5:140
 - custody, of client assets, 1:74
 - custody fees, 6:232, 288
 - customers, opinions of, 5:44
 - custom security-based benchmarks, 3:470; 6:139–140
 - CVaR. *see* conditional value at risk
 - CVG. *see* Country Version of GIPS
 - Cyclically Adjusted P/E Ratio (CAPE), 3:153–157, 161, 162
 - cyclical stocks, 3:94
 - Cyprus, 2:293, 304; 3:9n.
 - Czech Republic
 - capital gains tax, 2:236
 - gift tax, 2:293
 - in Hague Conference, 2:304
 - interest income taxation, 2:233
 - tax regime, 2:231, 347
- D**
- DAA. *see* dynamic asset allocation
 - DALBAR, 2:59, 75
 - Darnell, R. Max, 3:390
 - data
 - appraisal, 3:14–16
 - biases/errors in measurement of, 3:14–16
 - for capital market expectations, 3:14–17
 - comparable, 2:128–129
 - input, 6:216, 220–223
 - in Monte Carlo simulations, 2:199
 - quality of, 6:132–133
 - smoothed, 3:14–16
 - data-mining biases, 3:18
 - DAX 30
 - capitalization weighting of, 3:474
 - composition and characteristics, 4:268
 - stock index futures, 4:275
 - days in underlying, 5:313
 - day traders, 6:34
 - DB pension plans. *see* defined-benefit pension plans
 - DCF models. *see* discounted cash flow models
 - DC pension plans. *see* defined-contribution pension plans
 - dealer(s)
 - bond market, 4:22
 - defined, 6:10
 - and market liquidity, 4:199
 - roles of, 6:18–19
 - as type of trader, 6:34
 - dealer markets, 6:10–15
 - death, transfer of taxes at, 2:182
 - death benefits, of deferred variable annuities, 2:424
 - death tax, 2:182
 - debit collars, 2:350
 - debt
 - callable, 5:398–400
 - collateralized debt obligations, 1:114; 4:239–240
 - defaultable, 3:92
 - distressed, 5:98 (*see also* distressed securities)
 - emerging market, 3:92
 - external, 3:79
 - fiscal debt to GDP ratio, 3:78
 - foreign debt to GDP ratio, 3:79
 - noncallable, 5:400–403
 - off-balance-sheet, 2:330
 - recourse with respect to, 2:341n.a
 - Treasury, 3:37
 - Debt Management Associates, 5:225–226
 - debtor-in-possession, 5:101
 - debt to current account receipts, 3:79
 - decapitalizations, 2:495
 - deceit, 1:55
 - decimalization, 6:41
 - deci-pips, 3:377n.3
 - decision making
 - about concentrated single-asset positions, 2:332–337, 340, 362–364
 - basis for, 1:246–247
 - behavioral factors in, 2:107–108
 - in behavioral finance, 2:20–28
 - bounded rationality, 2:22–24
 - decision theory, 2:20–22
 - prospect theory, 2:24–28
 - committee, 2:136–138
 - investment committee dynamics, 2:137
 - techniques for structuring and operating committees, 2:137–138
 - ethical framework for, 1:13–14, 197–198
 - group, 1:129
 - investment objectives as basis for, 3:182
 - in traditional finance, 2:8–11
 - decision-making style questionnaire, 2:168
 - decision price, 6:24
 - decision-reversal risk, 3:186
 - decision risk, for alternative investments, 5:11–12
 - decisions, time frame for dissemination and, 1:84–85
 - decision theory, 2:20–22
 - declining-balance portfolio, 3:292n.27
 - decomposition of expected returns, 4:23–26
 - calculations in, 4:23–24
 - evaluating yield curve trades with, 4:178
 - example, 4:25–26
 - limitations on, 4:26–27
 - dedicated bond portfolio, 4:64
 - deductible
 - health insurance, 2:403n.3, 421
 - homeowner's insurance, 2:419
 - deduction method, 2:308
 - deemed dispositions, 2:298, 307
 - deemed distributions, 2:303
 - default
 - credit default swaps
 - and credit risk, 5:189
 - index derivatives, 4:230–231
 - for liquidity risk management, 4:230–231
 - as tail risk hedge strategy instrument, 4:232–233
 - cross-default provisions, 5:173–174
 - loss given default, 4:193
 - defaultable debt, 3:92
 - default correlations, CDOs and, 4:239–240
 - default-free bonds, nominal, 3:91–92
 - default options, 2:120–121
 - default rate, real GDP growth rate vs., 4:216
 - default risk, 4:193
 - default-risk-free yield curve, 6:81
 - default risk premiums, 3:36
 - defeasance, 4:64–65
 - deferred annuities, 2:423–424
 - deferred capital gains, 2:234–237
 - deficits
 - budget, 3:67–68, 72–73
 - current account, 3:78–79, 102–103
 - twin deficits problem, 3:72–73
 - defined-benefit (DB) pension plans
 - asset size and performance of, 3:323
 - defined, 2:463
 - defined-contribution vs., 2:463–464
 - discounting liabilities for, 2:283
 - investment objective of, 3:181
 - liabilities for, 3:273–276
 - liability-driven investing, 4:78–88
 - calculating ABO and PBO, 4:79–81
 - derivatives overlay strategies, 4:82–86
 - duration gap in, 4:80–82
 - example, 4:86–87
 - and types of liabilities, 4:78–79

- defined-benefit (DB) pension plans
 - (*continued*)
 - liability-relative allocation for, 3:208–211
 - market risk for, 5:142
 - portfolio management for, 2:464–477
 - corporate risk management, 2:476–477
 - legal and regulatory factors, 2:472–473
 - liquidity requirement, 2:470–471
 - return objectives, 2:468–470
 - risk objectives, 2:465–468
 - tax concerns, 2:472
 - time horizon, 2:471–472
 - unique circumstances, 2:473–476
- defined-contribution (DC) pension plans
 - behavioral factors in portfolio construction for, 2:120–125
 - defined, 2:463
 - defined-benefit vs., 2:463–464
 - portfolio management for, 2:477–484
 - middle-aged participant, 2:478
 - objectives and constraints framework, 2:478–479
 - participant in early career, 2:479
- deflation
 - in business cycle analysis, 3:55–59
 - defined, 3:58
 - effects of, for bonds, 3:59; 4:256
- delay costs, 6:23, 25
- deleveraged floaters, 4:184
- Deloitte Touche Tohmatsu International Business Guides, 2:227
- delta
 - and currency option quotes, 3:406–407
 - defined, 3:404; 5:152
 - gamma and risk of, 5:342–343
 - and option portfolio risk management, 5:333–335
 - and option price sensitivity, 5:336
 - and time, 5:336–337
 - and volatility trading, 3:405–406
- delta hedge, 3:405; 5:333–343
- delta-normal method, 5:160
- demand
 - business-cycle related, 5:51–52
 - for venture capital, 5:30–31
- demand deposit, 2:520n.30
- demutualization, 2:499
- Denmark
 - capital gains taxes, 2:240n.5
 - equity real rates of return, 4:256
 - equity risk premium, 3:39
 - expected returns for equities/bonds, 3:24
 - in Hague Conference, 2:304
 - negative interest rates, 3:65
 - real GDP growth rate, 3:32
 - tax regime, 2:231, 347
- departments, physical separation of, 1:61
- Depository Trust Company, 4:30
- deposits, time and demand, 2:520n.30
- depth, market, 6:19
- de-risking, 3:349
- derivative contracts, accounting risk
 - with, 5:148–149
- derivative product companies, 5:188
- derivatives. *see also specific types, e.g.:*
 - options
 - for duration management, 4:137–140
 - foundation investments in, 2:488
 - for immunizing multiple liabilities, 4:73–76
 - indexes as bases for, 3:472
 - for interest rate exposure management, 4:222
 - portfolio rebalancing with, 6:99–100
 - as tail risk hedge strategy instrument, 4:233
 - types of, 4:137n.8
 - derivatives-based semiactive equity investing, 4:303, 305
 - derivatives overlay, 4:73–76, 82, 84–91
 - Derivatives Policy Group, 5:171
 - descriptions of securities, 1:141–142
 - descriptive statistics, 3:23
 - detection of dominance, in prospect theory, 2:25
 - deteriorating fundamentals sell discipline, 4:302
 - deterministic retirement analysis, 2:197
 - Deutsche Bank, 4:234, 235; 5:9
 - Deutsche Börse, 3:485
 - developed economies
 - analysis of emerging vs., 3:77
 - justified P/E estimates for, 3:139–140
 - DFA. *see* dynamic financial analysis
 - Dietz, Peter, 6:131, 210, 283
 - differential returns, 6:146
 - diffusion index, 3:82
 - digital options, 3:425
 - diligence, 1:127
 - Diligence and Reasonable Basis [Standard V(A)], 1:126–137
 - application of the standard, 1:130–137
 - case study, 1:210–212
 - compliance procedures, 1:130
 - guidance, 1:126–129
 - diligence and reasonable basis defined, 1:127
 - group research and decision making, 1:129
 - quantitatively oriented research, 1:128
 - quantitatively oriented techniques, 1:129
 - secondary or third-party research, 1:127–128
 - selecting external advisers and subadvisers, 1:129
 - text of, 1:18, 126
 - dilution, of interest, 5:45
 - directed brokerage, 1:76
 - direct investment
 - in commodities, 5:46
 - foreign, 3:102
 - of venture capital, 5:34
 - direct loss, of property, 2:402
 - direct market access (DMA), 6:36
 - directors, conflicts of interest for, 1:151–152, 154–155
 - direct real estate, 2:388; 5:21
 - disability income insurance, 2:417–418, 434, 438
 - disciplinary action, disclosure of, 1:256
 - Disciplinary Review Committee (DRC), 1:9
- disclosure
 - of compensation, 1:77
 - of confidential information, 1:103–105
 - conflicts of interest
 - in case studies, 1:200–201
 - firm policies on, 1:77
 - in GIPS Valuation Principles, 6:271
 - interdepartmental referral arrangements, 1:163
 - investment system, 1:141, 143
 - issuer-paid research, 1:48
 - level of service, 1:86
 - material information, 1:60–61, 64
 - of performance calculation
 - methodology, 1:100–101
 - personal investing policies, 1:160
 - personal trading, 1:161
 - possible illegal activity, 1:104
 - for real estate, 6:261–262
 - referral arrangements, 1:162–164
 - selective, 1:64, 86, 88
 - on social media, 1:89
 - trade allocation procedures, 1:86
 - Trade Management Guidelines on, 6:49
 - for wrap fee/SMA, 6:270
- Disclosure (GIPS Section I.4), 6:245–251
 - excerpt of, 6:216
 - implementation of, 6:248–249
- Disclosure of Conflicts [Standard VI(A)], 1:149–156
 - application of the standard, 1:152–156
 - compliance procedures, 1:152
 - guidance, 1:149–152
 - conflicts as a director, 1:151–152
 - cross-departmental conflicts, 1:151
 - disclosure to clients, 1:150–151
 - disclosure to employers, 1:150
 - stock ownership conflicts, 1:151
 - text of, 1:18, 149
- Disclosures (AMC Part F), 1:243–244, 255–258
- discounted cash flow (DCF) models, 3:12, 31–35
- discounting
 - hyperbolic, 2:76
 - of liabilities for DB pension plans, 2:283
 - of spending needs, 2:282–283
 - valuation discounts, 2:297–298
- discount rate
 - in hedging portfolio approach, 3:283–284
 - for human capital, 2:383–384
 - and liabilities, 3:276
 - in life insurance pricing, 2:411
 - and longevity risk, 3:215
- discounts
 - lack of marketability, 2:339
 - for non-controlling interest, 2:339
 - valuation, 2:297–298
- discretion
 - of brokers, 6:18
 - GIPS definition, 6:237
 - for real estate investments, 6:261
 - in verification process, 6:278–279

- discretionary hedging, 3:393
- discretionary trading strategies, 5:86
- discretionary trusts, 2:300, 301
- discretionary wealth, 2:279n.11, 335n.4
- discretion strategies, 6:45
- disequilibrium behavior, temporary, 2:139
- disinflation, 3:55
- disintermediation, 2:499, 505
- Disney World, 5:251
- dispersion
 - defined, 4:56
 - internal, 6:250–255, 289
- disposition effect
 - defined, 2:70
 - example of, 2:71
 - and excessive trading/bubbles, 2:143–144
 - and momentum, 2:141
- dissemination of information
 - pre-dissemination behavior, 1:85
 - simultaneous, 1:85
 - time frame between decision and, 1:84–85
 - trading prior to, 1:161–162
- dissociation, 1:26–28
- distinct business entity, 6:218, 288
- distressed debt arbitrage, 5:98
- distressed securities, 5:94–103
 - bankruptcy process, 5:100–102
 - absolute priority rule, 5:102
 - Chapter 7 and Chapter 11, 5:102
 - prepackaged filings, 5:102
 - in United States vs. other countries, 5:101
- benchmarks, 5:95
- defined, 5:8
- example, 5:102–103
- historical performance, 5:95–97
- interpretation issues, 5:97
- investment characteristics, 5:97–98
- market for, 5:94–95
- in portfolios, 5:98–100
 - distressed debt arbitrage, 5:98
 - long-only value investing, 5:98
 - private equity, 5:98–100
 - private equity of, 5:98–100
 - types of, 5:94–95
- distressed securities hedge fund
 - strategies, 5:57–58
- distressed securities market, 5:94–95
- distribution area laws, 1:26
- distribution phase of life, 2:164
- distributions
 - defined, 6:288
 - present value of distribution of cash flows methodology, 4:96
 - short-term income, 2:199
 - since-inception, 6:265
- diversification
 - and asset allocation, 2:193, 194
 - with asset classes, 3:197
 - and availability bias, 2:68
 - of concentrated portfolios, 5:380–382
 - conditional 1/n, 2:122
 - and confirmation bias, 2:55–56
 - in defined-contribution pension plans, 2:477–478
 - and DJIA history, 4:267
 - as firm policy, 1:77
 - and fixed-income portfolio management, 4:6–8
 - with hedge funds, 5:72–73
 - with human capital, 2:483–484
 - and illusion of control bias, 2:61
 - indexed portfolios, 4:273
 - international, 5:382–384
 - for managing tail risk in credit portfolios, 4:231
 - of market risk, 2:334–335
 - and mental accounting bias, 2:124–125
 - naïve, 2:122
 - need for, 1:92
 - with private equity, 5:42, 43
 - with real estate, 5:22–25
 - and strategic decisions about currency exposures, 3:389–391
 - with swap strategies, 5:380–384
 - time, 3:334
 - in value-weighted/float-weighted indexes, 4:262
- diversification effect, for VaR, 5:162
- diversified managed futures, 5:86
- divestiture, of private business equity, 2:360
- divide-and-conquer procedure, 2:23
- dividend recapitalization, 5:33
- dividends
 - accrual taxes on, 2:233–234
 - and stock index futures trade, 5:230
 - in synthetic index funds, 5:235–236
 - tax provisions for, 2:228; 3:340
 - in tax regimes, 2:229–231, 235, 347
- dividend yield
 - in bottom-up approach, 4:322
 - in holdings-based style analysis, 4:288, 290
 - in value investment style, 4:280
- DJIA. *see* Dow Jones Industrial Average
- DMA. *see* direct market access
- documentation
 - portfolio, 6:236
 - research, 2:136
 - of trade allocation procedures, 1:85
 - in verification process, 6:280
- documents, former employers', 1:110
- dollar, Australian
 - as commodity currency, 3:439
 - currency code, 3:375
 - in currency pairs, 3:376, 428
 - yen carry trade with, 4:135
- dollar, Canadian
 - currency code, 3:375
 - in currency pairs, 3:376, 377n.4
 - currency swaps with, 5:376–377
- dollar, Hong Kong, 4:236
- dollar, New Zealand
 - as commodity currency, 3:439
 - currency code, 3:375
 - in currency pairs, 3:376, 428
- dollar, US
 - benefits of currency exposure for, 3:390–391
 - converting yen into, 5:375–376
 - currency code, 3:375
 - in currency pairs, 3:103, 376, 377, 378n.7, 411, 428
- dual-currency bonds in, 5:377–380
 - as haven currency, 3:439
 - and interest rate derivatives, 4:73–74
 - as swap counter payment, 4:275
 - swap curve, 4:202
 - and yen carry trade, 4:135
 - and yield curve trades, 4:178
- Dollar-Canada market (CAD/USD), 3:376, 377n.4
- dollar duration, 4:67, 130; 5:222–223. *see also* money duration
- Dollar-Swiss market (CHF/USD), 3:376
- dollar value of basis point (DV01), 4:68, 130. *see also* price value of a basis point
- Dollar-yen market (JPY/USD), 3:376, 377, 378n.7, 411
- domestic assets, 3:381
- domestic currency, 3:381
- domestic-currency returns, 3:382–385
- donor-advised funds, 2:367–368
- do not initiate orders, 6:8
- dopamine, 2:19–20
- double inflection utility function, 2:17
- double taxation, 2:307–310
- double taxation treaties (DTT), 2:308–310
- Dow Jones & Co., 4:324, 328
- Dow Jones Euro STOXX 50, 3:139–140; 5:384
- Dow Jones Industrial Average (DJIA)
 - certainty overconfidence in prediction of, 2:74–75
 - composition and characteristics, 4:267, 268
 - as equity market gauge, 4:93
 - and historical simulation method, 5:161
 - historical track record of, 3:478
 - price weighting, 3:474; 4:262
 - uses of, 3:471
- Dow Jones Industrial Index, 2:34
- Dow Jones REIT Indexes, 5:17
- Dow Jones Wilshire indexes, 4:292
- down-from-cost sell discipline, 4:302
- downside deviation, 5:79–80, 191
- downside risks, aversion to, 2:145
- downside volatility, 5:79–80
- DPI, 6:265, 288
- drawdown, 5:80, 190
- drawdown controls, 3:302
- DRC. *see* Disciplinary Review Committee
- DTS. *see* duration times spread
- DTT. *see* double taxation treaties
- dual currency bonds, 5:377–380
- dual-currency notes, 4:184
- due diligence
 - for alternative investments, 5:9–12
 - for DB plans, 2:473
 - defined, 5:7
 - and failed investments, 1:135
 - in financial research and analysis, 1:33
 - for hedge funds, 5:76–78
 - for private equity, 5:43–45
 - for real estate, 5:27
 - in submanager selection, 1:132–133
 - sufficient, 1:130, 133–134

- duration
 - of bonds, 5:152, 219
 - dollar, 4:67, 130; 5:222–223
 - effective
 - calculating, 4:50–51
 - defined, 4:130
 - empirical duration vs., 4:196
 - as indexing risk factor, 4:95
 - and interest rate exposure, 4:221
 - empirical, 4:196, 197
 - ex post*, 5:224, 225
 - of fixed-income portfolios, 5:363–366
 - and interest rate risk, 4:195–198
 - key rate
 - and bullet/barbell portfolios, 4:142
 - defined, 4:130
 - as indexing risk factor, 4:95
 - and interest rate exposure, 4:221
 - leverage-adjusted duration gap, 2:521
 - Macaulay
 - defined, 4:55, 130; 5:220n.7
 - and duration matching, 4:67, 68
 - of single fixed-income bond, 4:53–56, 59, 61
 - for zero-coupon bonds, 4:131
 - modified
 - defined, 4:130; 5:220
 - and duration matching, 4:67
 - formula for, 4:131n.4
 - and swaps, 5:364–365
 - money
 - defined, 4:130
 - and duration management, 4:138
 - and duration matching, 4:67–69, 71
 - partial, 4:130, 154–155, 159–160
 - portfolio modified adjusted, 4:95
 - risk factor exposure to, 3:201
 - spread
 - as credit quality measure, 4:218
 - defined, 4:194
 - as indexing risk factor, 4:96
 - as metric for position sizing, 4:214–215
 - Z-spread vs., 4:211–212
 - of swaps, 5:363–366
 - target dollar, 5:222–223
 - and yield curve strategies, 4:130–132
- duration management
 - derivatives for, 4:137–140
 - yield curve strategies, 4:135–140
- duration matching, 4:13–14
 - cash flow matching vs., 4:14
 - to immunize multiple liabilities, 4:67–73
- duration positioning, 4:146–150
- duration times spread (DTS), 4:219
- Duties to Clients [Standard of Professional Conduct III], 1:73–105; 6:29
- Fair Dealing [Standard III(B)], 1:82–90
 - application of the standard, 1:86–90
 - case study, 1:207
 - compliance procedures, 1:84–86
 - guidance, 1:82–84
 - text of, 1:17, 82
- Loyalty, Prudence, and Care [Standard III(A)], 1:73–81
 - application of the standard, 1:78–81
 - case study, 1:205, 207
 - compliance procedures, 1:77–81
 - guidance, 1:73–77
 - text of, 1:17, 73
- Performance Presentation [Standard III(D)], 1:97–101
 - application of the standard, 1:98–101
 - case study, 1:213
 - compliance procedures, 1:98
 - guidance, 1:97–98
 - text of, 1:17, 97
- Preservation of Confidentiality [Standard III(E)], 1:101–105
 - application of the standard, 1:103–105
 - compliance procedures, 1:103
 - guidance, 1:101–102
 - text of, 1:17, 101
- Suitability [Standard III(C)], 1:90–97
 - application of the standard, 1:94–97
 - compliance procedures, 1:93–94
 - guidance, 1:90–93
 - text of, 1:17, 90
 - text of, 1:16–17
- Duties to Employers [Standard of Professional Conduct IV], 1:105–126
 - additional compensation arrangements [Standard IV(B)], 1:116–117
 - application of the standard, 1:116–117
 - compliance procedures, 1:116
 - guidance, 1:116
 - text of, 1:17, 116
- Loyalty [Standard IV(A)], 1:105–115
 - application of the standard, 1:109–115
 - case study, 1:205
 - compliance procedures, 1:109
 - guidance, 1:105–109
 - text of, 1:17, 105
- Responsibilities of Supervisors [Standard IV(C)], 1:118–126
 - application of the standard, 1:122–126
 - case study, 1:204
 - compliance procedures, 1:120–122
 - eleventh edition revision, 1:7–8
 - guidance, 1:118–120
 - text of, 1:18, 118
- DV01. *see* dollar value of basis point
- dynamic asset allocation (DAA), 3:216
- dynamic financial analysis (DFA), 3:285
- dynamic hedges
 - over- and under-hedging, 3:421
 - rebalancing with, 3:412–414
- dynastic goals, 3:214
- E**
 - early career phase (financial stages of life), 2:392–393
 - early retirement phase (financial stages of life), 2:393
 - early-stage financing, 5:30–31
 - early transfers of taxes, 2:182
 - early upswing phase (business cycle), 3:53, 54, 94
 - earnings
 - expected nominal earnings growth return, 3:34
 - earnings at risk (EAR), 5:170
 - earnings-based models for equity market
 - Cyclically Adjusted P/E Ratio, 3:153–157
 - Fed model, 3:147–150
 - with UK data, 3:150
 - with US data, 3:147–148
 - Yardeni model, 3:150–153
 - earnings momentum investment style, 4:280
 - earnings risk, 2:400–401
 - earn outs, 2:362
 - Eastern Bloc, historical data from, 3:139.
 - see also specific countries*
 - Eastern Europe. *see specific countries*
 - EBS, 3:411
 - EC. *see* GIPS Executive Committee
 - ECB. *see* European Central Bank
 - ECNs. *see* electronic communications networks
 - econometric modeling
 - of costs of trading, 6:30–32
 - for economic forecasting, 3:80–81, 89
 - econometrics, 3:80
 - economic analysis, 3:50–103
 - business cycle analysis, 3:51–66
 - factors affecting, 3:60–68
 - inflation and deflation in, 3:55–59
 - inventory cycle, 3:51, 52
 - market expectations in, 3:59–60
 - stages of business cycle, 3:53–55
 - and economic forecasting, 3:80–89
 - checklist approach, 3:86–89
 - econometric modeling, 3:80–81
 - economic indicators, 3:81–86
 - strengths and weaknesses of forecasting, 3:88–89
 - exogenous shocks in, 3:74–75
 - forecasting asset class returns with, 3:89–104
 - cash and equivalents, 3:89–90
 - common shares, 3:93–97
 - currencies, 3:99–100
 - defaultable debt, 3:92
 - emerging market bonds, 3:92
 - and forecasting exchange rates, 3:100–103
 - and historical capital market expectations, 3:97–99
 - inflation-indexed bonds, 3:92–93
 - nominal default-free bonds, 3:91–92
 - real estate, 3:97
 - growth trends, 3:68–73
 - consumer impact on, 3:69–70
 - in GDP, 3:70–72
 - and government structural policies, 3:72–73
 - information sources for, 3:104–105
 - international interactions, 3:75–80
 - in emerging markets, 3:77–80
 - interest rate/exchange rate linkages, 3:75–77
 - macroeconomic linkages, 3:75
- economic (holistic) balance sheet and asset allocation, 3:188–191
- assets on, 2:382
- human capital considered on, 2:442
- used in individual risk management, 2:396–397

- economic data, for CME forecasts, 3:13–14
- economic exposure, 5:251
- economic forecasting, 3:80–89
 - checklist approach, 3:86–89
 - econometric modeling, 3:80–81
 - with economic indicators, 3:81–86
 - for Asia Pacific, 3:83
 - for Europe, 3:82–83
 - for North America, 3:84–86
 - for South America, 3:83–84
 - worldwide, 3:82
 - strengths and weaknesses of forecasting, 3:88–89
- Economic Freedom Index, 3:78
- economic fundamentals, 3:399–400
- economic growth
 - checklist for, 3:86–89
 - in country risk analysis, 3:78
 - future growth predicted for China, 3:130–131
 - trends in, 3:51, 68–73
 - consumer impact on, 3:69–70
 - for GDP, 3:70–72
 - and government structural policies, 3:72–73
- economic indicators
 - advantages and disadvantages of, 3:89
 - for Asia Pacific, 3:83
 - economic forecasting with, 3:81–86
 - for Europe, 3:82–83
 - for North America, 3:84–86
 - relative strength, 4:280
 - for South America, 3:83–84
 - worldwide, 3:82
- Economic Optimism Index, 3:49
- economic sectors
 - allocation to, 4:220–221
 - and credit universe, 4:206–207
 - energy, 4:234
 - portfolio monitoring for sector exposures, 6:82–83
 - private and public, 3:73
 - regional differences in, 4:234
 - sector effect for fixed-income attribution, 6:165
 - technology, 6:158–159
 - in top-down vs. bottom-up credit strategies, 4:215
 - weighting of, 6:156–159
- economic shocks, 3:68–69, 74–75
- economic state, bias about, 2:63
- Ecuador, 2:304
- EDPCs. *see* enhanced derivative product companies
- education, 1:121, 201
- education phase (financial stages of life), 2:392
- effective convexity, 4:131, 221–222
- effective duration
 - calculating, 4:50–51
 - calculation of, 4:50–51
 - defined, 4:130
 - empirical duration vs., 4:196
 - as indexing risk factor, 4:95
 - and interest rate exposure, 4:221
- effective interest
 - with call, 5:314, 316
 - with cap, 5:324–326
 - with collar, 5:331, 332
 - with floor, 5:328, 329
 - with put, 5:319–321
- effective loan rate
 - with call, 5:314, 316–317
 - with cap, 5:325, 326
 - with put, 5:319, 321
- effectiveness, of risk governance, 5:138
- effective spread, 6:12–14
- efficiency
 - price, 4:298–299
 - of risk governance, 5:138
 - tax, 2:327; 6:70
- efficient asset mixes, 3:239
- efficient frontier(s)
 - for asset allocation in pension funds, 3:337
 - for asset-only allocation, 3:281
 - balance sheet approach, 3:249
 - and Black–Litterman model, 3:257–259
 - expected returns in, 3:253
 - factor-based allocation, 3:271–272
 - generated in mean–variance optimization, 3:241–245
 - of managers, 4:306, 307
 - with resampling, 3:260–261
 - retirement income, 2:430–431
 - surplus, 3:279–281
 - and taxation, 3:342–344
- efficient market hypothesis (EMH), 2:28–36
 - and AMH, 2:41
 - and calendar anomalies, 2:35
 - and fundamental anomalies, 2:33–34
 - and index funds, 6:22
 - and indexing, 4:276
 - and limited arbitrage, 2:35–36
 - review of, 2:28–30
 - semi-strong-form, 2:29–32
 - studies challenging, 2:32–36
 - studies in support of, 2:30–32
 - and technical anomalies, 2:34
 - weak-form, 2:29–31
- EFP. *see* Exchange of Futures for Physicals
- Egypt, 2:179, 304
- elective professional clients, 3:325
- electronic communications networks (ECNs), 6:16
- electronic crossing networks, 6:15–16, 21
- electronic information, confidentiality of, 1:102
- electronic limit-order markets, 6:16
- Electronic Municipal Market Access (EMMA), 4:21
- electronic trading platforms (ETPs), 4:226
- eligible investments, 2:507
- elimination, asset allocation by, 2:188–196
- elimination period, of disability income insurance, 2:418
- Ellis, Charles D., 4:259
- embedded options, bonds with and cash flow matching, 4:13
- and credit spread measures, 4:204
- effective convexity, 4:131
- effective duration, 4:130
- expected return decomposition, 4:24
- and immunization, 4:14
- interest rate exposure, 4:221
- and OAS, 4:203
- yield curve strategies, 4:168–169
- EMBI. *see* JP Morgan Emerging Markets Bond Index
- EMBI Global Index (EMBIG). *see* JP Morgan Government Bond Index–Emerging Markets Global
- emergency reserves, 2:176
- emerging market bonds, 3:92
- emerging market debt, 3:92
- emerging market equities, 3:198
- emerging markets, 3:438–441
 - carry trade returns, 4:135
 - common shares in, 3:97
 - country risk analysis, 3:77–80
 - credit universe in, 4:235
 - developed vs. emerging economies, 3:77
 - in economic analysis, 3:77–80
 - in hedge fund strategies, 5:58
 - liquidity problems, 4:236
 - non-deliverable forwards, 3:440–441
 - trading costs and extreme market events, 3:438–440
- EMH. *see* efficient market hypothesis
- e-mini S&P 500, 4:274–275
- EMMA. *see* Electronic Municipal Market Access
- emotional biases, 2:70–81
 - of analysts, 2:125
 - in BFMI, 2:7–8
 - cognitive errors vs., 2:51–52
 - in conducting research, 2:133–136
 - defined, 2:50
 - endowment bias, 2:78–79
 - high-wealth-level investor case study, 2:88–92
 - behaviorally-modified portfolio decision, 2:92
 - diagnostic tests, 2:89–91
 - effect of biases, 2:91
 - moderate or adapt recommendation, 2:91–92
 - investors with cognitive errors and, 2:117
 - of investors with concentrated positions, 2:331–332
- loss-aversion bias, 2:70–73
 - and asset allocation, 3:362
 - consequences of, 2:72
 - detection and methods of overcoming, 2:73
 - effect of, 2:71
 - myopic loss aversion, 2:72–73
- overconfidence bias, 2:73–76
 - and asset allocation, 3:362
 - consequences of, 2:75
 - detection and methods of overcoming, 2:75–76
 - prediction and certainty overconfidence, 2:74–75
- regret-aversion bias, 2:79–80
- self-control bias, 2:76–77
- status quo bias, 2:77–78
- emotional intelligence, 2:79

- emotions, control of, 2:51
- empirical duration, 4:196, 197
- employee classifications, 1:109
- employee references, checking, 1:54
- Employee Retirement Income Security Act (ERISA), 2:468, 472–473, 477–478
- employees
 - independent contractors vs., 1:108–109
 - sale of private business equity to, 2:359–360
- employee share ownership plans, 2:483–484
- employee stock ownership plans
 - as hybrid pension plans, 2:483–484
 - and private business equity, 2:361–362
- employer(s)
 - competing with current, 1:112
 - disclosure of conflicts to, 1:150, 156
 - duties to (*see* Duties to Employers [Standard of Professional Conduct IV])
 - leaving, 1:106–107, 115
 - misrepresentation of work for, 1:46
 - responsibilities of, 1:106
- employer mandates, 2:330
- employer pension plans (vested), 2:389–390
- employment, nature of, 1:108–109
- employment contracts, 5:44
- EMU. *see* European Monetary Union
- endogenous variables, 3:20
- endowment bias, 2:78–79, 331
 - of analysts, 2:134
 - consequences of, 2:79
 - detection and methods of overcoming, 2:79
 - diagnostic questions, 2:87
 - and status quo bias, 2:77
- endowment model, 3:308–309
- endowments
 - in asset allocation constraints, 3:337–338
 - foundations vs., 2:485
 - investment objective of, 3:181
 - investment policy statements, 2:496–499
 - liabilities for, 3:273
 - portfolio management for, 2:489–499
 - legal and regulatory factors, 2:495
 - liquidity requirements, 2:494
 - return objectives, 2:492–494
 - risk objectives, 2:491–492
 - tax concerns, 2:495
 - time horizon, 2:494–495
 - unique circumstances, 2:495–496
- energy sector, 4:234
- Engle, Robert F., 3:27
- enhanced derivative product companies (EDPCs), 5:188
- enhanced indexing
 - and bond market exposure, 4:93–94
 - as equity investment approach, 4:258
 - and fixed-income portfolio management, 4:16–17
 - semiactive equity investing, 4:303–305
- enhanced-index managers, 3:473
- Enron Corporation, 2:122, 325; 3:68
- enterprise risk management (ERM), 5:138–140, 183
- entertainment
 - and gifts from clients, 1:39
 - and gifts from related parties, 1:38–39
- environmental, social, and governance (ESG) factors
 - in credit portfolio management, 4:225
 - and enhanced indexing, 4:99
 - and fixed-income mandates, 4:11
 - and sovereign wealth funds, 3:338
- equal probability rebalancing, 3:313; 6:93
- equal-weighted indexes, 3:478; 4:261–263, 265–266
- equal-weighted standard deviation, 6:253
- equal weighting, 3:474
- equilibrium
 - of inflation premium and real interest rate, 3:37–38
 - rational belief, 3:23n.18
- equilibrium models, for capital market expectations, 3:40–48
- equities. *see also specific types*
 - adjusting allocation between, 5:245–246
 - allocation of, 4:255, 292–293
 - bonds vs., 4:94–95
 - in current and previous investing environments, 3:351–352
 - drivers of returns for, 3:125–126
 - expected returns, 3:24–25
 - industry classification of, 4:323–324
 - inflation/deflation effects for, 3:59; 4:255–256
 - real rate of returns, 4:256–257
 - risk of, 5:228–230
 - strategic asset location for, 3:346
 - taxation of, 3:343–344
- equitization
 - of cash, 5:236–237
 - defined, 4:303n.58
 - of market-neutral long–short portfolios, 4:299
- equity. *see also* private equity (private business equity)
 - cash from, 5:237–241
 - home, 2:177–178
 - intergenerational, 2:486
 - synthetic index funds, 5:233–236
- Equity Analysts, Inc., 5:232
- equity–bonds covariance matrix, 3:28–31
- equity forward sale contracts, 2:345
- equity index futures, 4:274–275
- equity investment styles, 4:276–296
 - advantages of, 4:282
 - based on market capitalization, 4:281–282
 - growth, 4:277–278, 280
 - in holdings-based style analysis, 4:282–283, 288–291
 - identifying, 4:282–291
 - indexes based on, 4:291–294
 - market-oriented, 4:280–281
 - in returns-based style analysis, 4:283–288, 291
 - and style boxes, 4:294–295
 - and style drift, 4:295–296
 - value, 4:277–280
- equity IPOs, 1:158–159
- equity long–short hedge fund strategies, 5:67
- equity market
 - asset-based models, 3:157–161
 - constant growth model, 3:31–33
 - discounted cash flow models, 3:31–35
 - earnings-based models, 3:147–157
 - Cyclically Adjusted P/E Ratio, 3:153–157
 - Fed model, 3:147–150
 - Yardeni model, 3:150–153
- forecasts of, 3:140–146
 - market EPS, 3:144, 146
 - portfolio suitability of, 3:142–143
 - revising earnings forecasts, 3:145–146
 - types of forecasts, 3:141
 - using both forecasting approaches, 3:143–145
- relative value models, 3:147–162
- equity market-neutral hedge fund strategies, 5:57
- equity market risk
 - forward and futures strategies for managing, 5:227–241
 - cash from equity, 5:237–241
 - equity from cash, 5:232–237
 - risk of equities, 5:228–230
 - risk of equity portfolios, 5:230–232
 - swap strategies for managing, 5:380–389
 - and allocation of stocks and bonds, 5:384–387
 - diversifying concentrated portfolios, 5:380–382
 - insider exposure, 5:387–389
 - international diversification, 5:382–384
- equity market valuation, 3:125–173
 - with dividend discount models, 3:137–138
 - drivers of equity returns, 3:125–126
 - of insurance company investments, 2:507
 - justified P/E estimates, 3:126–140
 - for China, 3:128–129
 - creating valuation from estimates, 3:131–140
 - for developed economies, 3:139–140
 - and neoclassical approach to growth accounting, 3:126–127, 129–130
 - quantifying future economic growth from, 3:130–131
- practice problems, 3:165–171
- relative value models, 3:147–162
 - asset-based models, 3:157–161
 - earnings-based models, 3:147–157, 160–161
- solutions to problems, 3:172–174
- in systematic TAA, 3:358
- and top-down/bottom-up forecasts, 3:140–146
 - gaps in, 3:143–145
 - of market earnings per share, 3:144, 146
 - portfolio suitability for, 3:142–143
 - revising earnings forecasts, 3:145–146
 - top-down vs. bottom-up forecasting, 3:141, 144–145
- equity monetization, 2:343–347

- equity portfolio management, 4:253–337
 about, 4:254
 active equity investing, 4:276–302
 equity styles, 4:276–296
 long–short investing, 4:297–302
 sell disciplines, 4:302
 socially responsible investing, 4:296–297
 trading frequency, 4:302
 equity investment approaches in, 4:257
 options strategies, 5:277–312
 combinations of calls and puts, 5:304–312
 money spreads, 5:293–303
 standard long and short positions, 5:279–286
 and the underlying, 5:286–292
 passive equity investing, 4:258–276
 with indexes, 4:260–269
 investment vehicles, 4:267, 270–276
 for portfolios of managers, 4:306–313
 alpha and beta separation, 4:313
 completeness funds, 4:312–313
 core-satellite portfolios, 4:309–312
 and pension fund's performance objectives, 4:310–311
 practice problems, 4:327–333
 research
 buy- vs. sell-side, 4:323
 and industry classification, 4:323–324
 top-down vs. bottom-up approaches, 4:322
 role of equity portfolios, 4:255–257
 selecting securities for, 4:322–324
 semiactive equity investing, 4:303–305
 derivatives- vs. stock-based, 4:303, 305
 Fundamental Law of Active Management, 4:304
 solutions to problems, 4:334–337
 equity portfolio managers, 4:314–322
 fee proposals, 4:321–322
 fee structures, 4:315
 finding suitable candidates, 4:314
 past performance, 4:314
 questionnaires for, 4:315–321
 equity portfolios, risk in, 5:230–232
 equity premium puzzle, 2:72
 equity q ratio, 3:158–161
 equity REITs, 5:14
 equity risk premium
 for capital market expectations, 3:38–40
 and Fed model, 3:148
 Grinold–Kroner model for forecasting, 3:34–35
 equity style indexes, 4:277, 291–294
 equity swaps, 5:380–389
 diversifying concentrated portfolios with, 5:380–382
 fixed-income swaps vs., 5:384–389
 international diversification with, 5:382–384
 involving executives in, 5:389
 total return, 2:344–345; 4:275–276
 equity tranche, 4:240
 ERISA. *see* Employee Retirement Income Security Act
 ERM. *see* enterprise risk management
 errors. *see also* cognitive errors
 in accounts, 1:208
 of commission, 2:79
 known, 1:48
 notification of, 1:144
 of omission, 2:79
 processing, 2:52
 tracking
 of benchmarks, 6:139n.12, 142
 enhancement strategies to reduce, 4:99–100
 and indexing risk, 4:97
 and matching portfolios to indexes, 4:92
 and total return mandates, 4:16
 transcription, 3:14
 Type I, 6:181–182
 Type II, 6:181–182
 unintentional, 1:48
 ESG factors. *see* environmental, social, and governance factors
 ESG risk, 5:150
 estate planning, 2:271–318
 core capital, 2:278–288
 Monte Carlo estimation, 2:285–288
 mortality table estimation, 2:280–284
 cross-border, 2:303–311
 Hague Conference, 2:304–305
 taxes, 2:305–310
 transparency and offshore banking, 2:310–311
 defined, 2:273
 estates, wills, and probate, 2:273–274
 and legal systems, 2:274–276
 practice problems, 2:313–314
 solutions to problems, 2:315–318
 taxes, 2:276–278
 tools for, 2:299–303
 companies and controlled foreign corporations, 2:303
 foundations, 2:302
 life insurance, 2:302–303
 trusts, 2:299–301
 transferring excess capital, 2:288–299
 charitable gratuitous transfers, 2:298–299
 deemed dispositions, 2:298
 generation skipping, 2:296
 gifts and bequests, 2:288–296
 spousal exemptions, 2:297
 valuation discounts, 2:297–298
 and wealth management, 2:272–273
 estates, 2:273–274
 estate tax, 2:182, 277n.8, 288, 338–340
 estimates
 biases for, 2:63–64
 correlation, 3:12–13
 covariance, 3:28, 29
 expected return, 3:11–12
 historical, 3:16–18
 of human capital, 2:383–386
 justified P/E, 3:126–140
 for China, 3:128–139
 for developed economies, 3:139–140
 and neoclassical approach to growth accounting, 3:126–127, 129–130
 point, 3:24n.19
 estimators
 sample, 3:24–25
 shrinkage, 3:25–26
 time-series, 3:26–27
 Estonia, 2:304; 3:9n.
 ETFs. *see* exchange-traded funds
 ethical culture, 1:202
 ethical decision-making framework, 1:13–14, 197–198
 ethical investment considerations, for DB plans, 2:473
 ethical principles, applicable, 1:200
 ethics. *see also* Code of Ethics; Standards of Professional Conduct
 case studies, 1:197–237
 consultants, 1:198–202
 Pearl Investment Management, 1:202–213
 practice problems, 1:214–230
 solutions to problems, 1:231–237
 firms commitment to, 1:14
 importance, 1:11–15
 and investment industry, 1:11–15
 in portfolio decisions, 6:49
 and regulations, 1:13
 societal benefit of, 1:12
 ETPs. *see* electronic trading platforms
 EU. *see* European Union
 Eurex, 4:103
 Euribor. *see* Euro Interbank Offered Rate
 euro(s)
 converting
 to British pounds, 5:370–373
 to Canadian dollars, 5:376–377
 currency code, 3:375
 in currency pairs, 3:103, 375, 376
 dual-currency bonds in, 5:377–379
 exchange rate pegging, 3:76
 forward contracts on, 5:254–255
 Eurobonds, 4:127–128
 Eurodollar futures
 controlling risk with, 5:218–219
 hedging floating-rate loans with, 5:259
 Euro-dollar market (USD/EUR), 3:103, 376
 EuroHedge, 5:60–61
 Euro Interbank Offered Rate (Euribor), 5:390–392
 Euronext, 3:471; 6:8–9
 Europe. *see also* MSCI EAFE (Europe, Australasia, and Far East) Index; *specific countries*
 China stock market volatility vs., 3:136
 credit market, 4:234
 defined-benefit pension plans, 2:464
 economic indicators, 3:82–83
 energy industry in credit market indexes, 4:234
 family foundations, 2:184
 indexed portfolio regulation, 4:273
 insurance companies, 2:499
 and justified P/E estimates, 3:133
 and neoclassical approach to growth accounting, 3:129
 ownership of private business enterprises, 2:322
 Pfandbriefe bond market, 4:240
 private equity activity, 5:36–37
 real estate allocations, 5:21
 real estate returns, 5:20
 sovereign debt crisis effects, 4:233
 TFP growth, 3:71, 72
 trusts, 2:302

- European Central Bank (ECB)
 - monetary policy, 3:66, 102
 - open market operations by, 3:90
 - quantitative easing, 3:65
- European Community, 2:304
- European Monetary Union (EMU), 3:82
- European options, 5:178, 276
- European Private Equity and Venture Capital Association, 5:36
- European style swaptions, 5:389
- European Union (EU)
 - bankruptcy laws, 4:236
 - corporate form of publicly-traded companies, 5:35
 - economic growth projections, 3:130
 - high-yield credit market, 4:234–235
 - historical growth accounting, 3:128
 - UCITS rules, 4:273
 - valuation methods, 2:507
 - wealth taxes, 2:307
- European Union Savings Directive (EUSD), 2:311
- Euro-sterling market (GBP/EUR), 3:376
- Euro-Swiss market (CHF/EUR), 3:376
- Euro-yen market (JPY/EUR), 3:376
- Eurozone
 - capital flows forecasting approach, 3:102
 - CLI, 3:82
 - composition of, 3:9n.
 - deflation, 3:56–57
 - economy valuation, 3:139–140
 - monetary policy, 3:66
 - negative interest rates, 3:65
 - open market operations, 3:90
- Eurozone Harmonized Index of Consumer Prices (HICP), 3:82–83
- evaluated pricing, 4:95
- evaluation phase (prospect theory), 2:26–28
- event-driven hedge fund strategies, 5:67
- event risk, 5:99
- evergreen funds, 6:259, 288
- evidence, 2:135
- ex ante* risk, 3:18, 40
- excess benefit transactions, 2:495
- excess capital, 2:288–299
 - charitable gratuitous transfers, 2:298–299
 - deemed dispositions, 2:298
 - defined, 2:279
 - generation skipping, 2:296
 - gifts and bequests, 2:288–296
 - location of gift tax liability, 2:293–296
 - taxable gifts, 2:291–293
 - tax-free gifts, 2:289–291
 - spousal exemptions, 2:297
 - valuation discounts, 2:297–298
- excess corporate growth, 3:32
- excessive risk
 - and hindsight bias, 2:62
 - and loss-aversion bias, 2:72
 - and mental accounting bias, 2:64
 - and self-control bias, 2:77
- excessive trading, 2:123–124
 - ethics violation examples, 1:80, 89
 - and framing bias, 2:67
- and illusion of control bias, 2:61
- and loss-aversion bias, 2:72
- and market bubbles, 2:143
- excess return(s)
 - in credit portfolio, 4:205–206
 - defined, 3:467
 - to nondiversifiable risk, 6:168
 - in relative value analysis, 4:208–211
 - in top-down approach to credit strategy, 4:219
- exchange funds, 2:356; 6:78–79
- Exchange of Futures for Physicals (EFP), 4:275
- Exchange Rate Mechanism, 3:76
- exchange rate risk
 - and currency conversions, 5:370–377
 - and foreign cash receipts, 5:375–377
 - and loans, 5:370–375
 - risk of dual currency bonds, 5:377–380
 - swap strategies for managing, 5:370–380
- exchange rates
 - defined, 3:375
 - in emerging markets, 3:440
 - forecasts of, 3:100–103
 - capital flows, 3:102
 - government intervention, 3:104
 - purchasing power parity, 3:101
 - relative economic strength, 3:101
 - savings–investment imbalances, 3:102–103
 - USD/euro exchange rate, 3:103
 - and interest rates, 3:75–77, 101
 - real, 3:399–400
- exchanges, 6:8
- exchange-traded funds (ETFs)
 - fixed-income, 4:22, 101–103
 - fixed-maturity corporate bond, 4:108
 - in indexed portfolios, 4:267, 270–271
 - indexes as bases for, 3:472
 - in ladder portfolio, 4:108
 - for liquidity risk management, 4:231
 - and market-neutral long–short portfolios, 4:299
 - and uptick rule, 4:275
- exchange-traded futures, in FX market, 3:410–411
- exchange-traded instruments, 2:342–343
- execution, best. *see* best execution (term)
- execution of portfolio decisions, 6:5–63
 - about rebalancing, 6:99–100
 - client's interests, 6:47–49
 - importance of ethical focus, 6:49
 - Trade Management Guidelines, 6:48–49
 - costs of trading, 6:21–32
 - econometric models for costs, 6:30–32
 - transaction cost components, 6:22–30
 - duties of portfolio managers, 6:6
 - market microstructure, 6:7–21
 - evaluating market quality, 6:19–21
 - order types, 6:7–9
 - roles of brokers and dealers, 6:18–19
 - types of markets, 6:9–17
 - practice problems, 6:52–57
 - solutions to problems, 6:58–63
- trade execution decisions, 6:36–47
 - automated trading, 6:40–47
 - for handling of a trade, 6:36–37
 - objectives in trading, 6:37–40
- traders, 6:32–36
 - traders' selection of order types, 6:35–36
 - types of traders, 6:33–35
- execution-only responsibilities, 1:81
- execution uncertainty, 6:8
- executives, equity swaps involving, 5:389
- exempt investors, 2:254
- exemption method, 2:307–308
- exercise rate, of swaptions, 5:390
- exit strategies
 - for private equity investments, 5:31
 - staged, 2:359, 361
- exit taxes, 2:306–307
- exogenous economic shocks, 3:74–75
- exogenous variables, 3:20
- exotic options, 3:421, 424–425
- expansion-stage companies, 5:30
- expectations. *see also* capital market expectations (CME)
 - future market, 2:427
 - investor, 2:118, 165, 166
 - minimum, 3:291, 296
 - mortality, 2:409–410
- expected annual credit loss, 4:205
- expected credit losses, 4:24, 205
- expected excess return (EXR)
 - in credit portfolio, 4:205–206
 - in relative value analysis, 4:208–211
 - in top-down approach to credit strategy, 4:219
- expected future cash flows, 2:280–284
- expected income return, 3:34
- expected nominal earnings growth return, 3:34
- expected repricing return, 3:34
- expected returns
 - in asset-only allocation, 3:240
 - decomposition of, 4:23–26
 - calculations in, 4:23–24
 - evaluating yield curve trades with, 4:178
 - example, 4:25–26
 - limitations on, 4:26–27
 - estimates of, 3:11–12
 - and framing bias, 3:365
 - in goals-based allocation, 3:291
 - Gordon growth model, 3:31–33
 - Grinold–Kroner approach, 3:34–35
 - risk premium approach, 3:36
 - and taxation, 3:341, 343–344
 - unconditional, 3:19–20
- expected risk-adjusted performance, 2:193, 194
- expected value of concurrent returns, 2:198
- expenses
 - maximum out-of-pocket, 2:421
 - ongoing, 2:176
 - trading, 6:231–232, 257, 292
 - transaction, 6:260, 266, 292
 - travel, 1:36–37, 39–40
- expert networks, 1:67
- experts, 1:59–60

- expiration
 - closing out prior to, 2:342
 - time to, 5:52
 - value at
 - bear spread, 5:296–298
 - box spread, 5:310, 311
 - bull spread, 5:293, 295
 - butterfly spread, 5:299–300, 302
 - call options, 5:279–281, 285
 - collars, 5:306
 - covered calls, 5:286, 287
 - protective puts, 5:290, 291
 - put options, 5:282–285
 - straddles, 5:307–309
- explicit costs, 6:25
- ex post* alpha, 6:168–169
- ex post* Capital Market Line, 6:169
- ex post* duration, 5:224, 225
- ex post* performance benchmarks, 3:472
- ex post* risk, 3:18
- ex post* Security Market Line, 6:168–169
- ex post* Sharpe ratio, 6:169
- ex post* standard deviation, 6:251, 255
- exposures. *see* risk exposure(s)
- EXR. *see* expected excess return
- extended portfolio assets and liabilities, 3:188
- extension risk, 4:238
- extensions of VaR, 5:170–171
- external accounts, in country risk analysis, 3:78–79
- external advisers, selecting, 1:129
- external cash flows
 - at beginning/end of evaluation period, 6:124–125
 - defined, 6:123
 - GIPS definition, 6:243n.20, 288
 - in GIPS provisions, 6:222, 226–229
 - intraperiod, 6:123–125
 - macro attribution, 6:149–150
 - and performance evaluations, 6:123–125
 - and rate-of-return calculations, 6:123–125
 - and TWR vs. MWR, 6:129–131
- external constraints, 3:334–340
 - endowments and foundations, 3:337–338
 - insurance companies, 3:335
 - pension funds, 3:335–337
 - sovereign wealth funds, 3:338
- external debt, in country risk analysis, 3:79
- externalities, 3:73n.63
- externally compensated assignments, 1:113
- external manager, travel expenses from, 1:39–40
- external valuations of real estate, 6:260
- extinguishing accrual notes, 4:184
- Extraordinary Popular Decisions and the Madness of Crowds* (Mackay), 2:141
- extreme market events, 3:440
- Exxon, 4:263–266
- F**
- Fabozzi, Frank J., 5:219n.3
- factor-based allocation, 3:199–201, 226, 269–272
- factor betas, 3:28–29
- factor covariance matrix, 3:28–30
- factor loadings, 3:28–29
- factor-model-based benchmarks, 3:469–470; 6:137–138, 155
- factor modeling, 3:289
- factor push models, 5:172
- factor sensitivities, 3:28–29
- facts
 - opinions in reports vs., 1:141, 212
 - providing opinions as, 1:141
- factual presentations, misrepresentation and, 1:46–47
- failed investments, due diligence and, 1:135
- fair dealing
 - in AMC, 1:246
 - with clients, 1:90
 - between funds, 1:86–87
 - and IPO distribution, 1:87
 - and transaction allocation, 1:87–88
- Fair Dealing [Standard III(B)], 1:82–90
 - application of the standard, 1:86–90
 - case study, 1:207
 - compliance procedures, 1:84–86
 - developing firm policies, 1:84–86
 - disclosure of level of service, 1:86
 - disclosure of trade allocation procedures, 1:86
 - systematic account reviews, 1:86
 - guidance, 1:82–84
 - investment action, 1:83–84
 - investment recommendations, 1:82–83
 - text of, 1:17, 82
- Fairfax, Susan (case study), 2:188–194
- fair value
 - GIPS definition, 6:260, 289
 - in GIPS provisions, 6:221, 222, 260
 - in GIPS Valuation Principles, 6:271
- Fair Value Definition (GIPS Section II.A), 6:271
- fallen angels, 5:97
- Fama and French three-factor asset pricing model, 2:144
- Fama–French multi-risk-factor framework, 2:38
- familiarity bias (familiarity effect), 2:123; 3:366–367
- family accounts, 1:80, 158, 160–161
- family foundations, 2:184–185, 487
- family limited partnerships (FLPs), 2:297–298, 339
- family members, sale of private business equity to, 2:360
- Fannie Mae. *see* Federal National Mortgage Association
- FAS 115. *see* Financial Accounting Standard 115
- FASB. *see* Financial Accounting Standards Board
- favors, requested, 1:155
- FCMs. *see* futures commission merchants
- FDI. *see* foreign direct investment
- fear index, 3:357
- Federal Deposit Insurance Corporation, 2:520
- federal funds rate (fed funds), 3:64, 90
- Federal Home Loan Mortgage Corporation (Freddie Mac), 4:237
- Federal National Mortgage Association (FNMA; Fannie Mae), 4:168, 237
- Federal Reserve
 - banking policies of, 6:80
 - economic data from, 3:104
 - fed funds rate, 3:64, 90
 - Flow of Funds Accounts of the United States-Z.1*, 3:158
 - and MBS, 4:237
 - monetary policy, 3:102
 - monetary policy in recessions, 3:60
 - and Orange County bankruptcy, 4:184
 - quantitative easing, 3:65
 - response to financial crisis, 3:75
 - and systematic risk, 5:229
 - and “Taper Tantrum,” 4:198
- Federal Reserve Bank of New York, 3:329
- Federal Reserve Bank of Philadelphia, 3:48
- fed funds. *see* federal funds rate
- Fed model, 3:147–150
 - as DCF model, 3:35
 - strengths and limitations, 3:160
 - with UK data, 3:150
 - with US data, 3:147–148
 - Yardeni model vs., 3:161–162
- fee caps, 4:315
- feedback
 - and committee decision making, 2:137
 - and hindsight bias, 2:128
 - and overconfidence bias, 2:128
 - and research, 2:135
- fees. *see also* Referral Fees [Standard VI(C)]
 - administrative, 6:257–258, 287
 - ad valorem, 4:315, 321–322
 - assets under management, 4:315; 5:58–59
 - associated with annuities, 2:428
 - bundled, 6:232, 268–269, 287
 - and conflicts of interest, 1:151
 - custody, 6:232, 288
 - with exchange-traded instruments, 2:342
 - investment management, 6:223, 257, 289
 - management, 1:256
 - performance-based, 4:315, 321–322; 5:75
 - referral (*see* Referral fees [Standard VI(C)])
 - service, 1:40
 - wrap, 6:217, 268–270
- fee schedule, 6:250, 289
- fictitious name, 1:173, 174, 176
- fiduciary, 2:473
- files
 - current, maintaining, 1:26
 - of former employers, 1:110
- final liquidation date, 6:265, 267, 289
- Financial Accounting Standard (FAS) 115, 2:502n.22
- Financial Accounting Standards Board (FASB), 5:148, 149; 6:270

- financial advice
 - for Active Accumulators, 2:116
 - on asset allocation, 2:84–86
 - for Friendly Followers, 2:115
 - for Independent Individualists, 2:115–116
 - for Passive Preservers, 2:114–115
- Financial Analysts Federation, 6:208, 210, 283
- financial buyers, 2:358–359
- financial capital, 2:386–390
 - account types, 2:390
 - core (*see* core capital)
 - defined, 2:382–383
 - excess (*see* excess capital)
 - human vs., 2:387
 - investment assets, 2:388
 - non-marketable assets, 2:389–390
 - employer pension plans, 2:389–390
 - government pensions, 2:390
 - non-publicly traded marketable assets, 2:388–389
 - annuities, 2:389
 - business assets, 2:389
 - cash-value life insurance, 2:389
 - collectibles, 2:389
 - real estate, 2:388
 - personal assets, 2:387
 - publicly traded marketable assets, 2:388
- financial crises. *see also specific crises*
 - as exogenous shocks, 3:75
 - and liquidity risks, 4:232
- Financial Industry Regulatory Authority (FINRA), 4:21, 94–95
- Financial Instruments: Recognition and Measurement* (IAS 39), 5:149
- financial managed futures, 5:86
- financial market equilibrium models, 3:40–48
- financial market participants (FMPs), 2:52
- financial market risk. *see* market risk
- financial modeling, 1:9
- Financial Modernization Act, 2:506–507
- financial ownership, 5:14
- financial ratio analysis, 4:221
- financial review, of private equity, 5:44–45
- financial risk, 1:208; 5:141
- Financial Services Authority, 2:507
- financial stages of life, 2:392–394
 - career development phase, 2:393
 - early career phase, 2:392–393
 - early retirement phase, 2:393
 - education phase, 2:392
 - late retirement phase, 2:394
 - peak accumulation phase, 2:393
 - pre-retirement phase, 2:393
- financial statements, 5:45
- Financial Times Actuaries Share Indexes, 3:473–474
- Financial Times Stock Exchange (FTSE), 3:471, 474; 4:292. *see also indexes beginning* FTSE
- financial wealth. *see* wealth
- financing
 - early-stage, 5:30–31
 - mortgage, 2:367
 - refinancing, 2:369
- Finland
 - equity real rates of return, 4:256
 - Eurozone membership, 3:9n.
 - in Hague Conference, 2:304
 - interest income taxation, 2:233
 - tax regime, 2:231, 347
- FINRA. *see* Financial Industry Regulatory Authority
- fire sale, 4:31
- firewalls, 1:32, 61
- firm policies
 - in case studies, 1:204, 205, 208, 210–213
 - for fair dealing, 1:84–86
 - on loyalty, prudence, and care, 1:77–78
- firm results, overemphasis of, 1:53
- firms
 - commitment to ethics by, 1:14
 - compliance with Code of Standards, 1:10
 - confidential information about, 1:115
 - GIPS compliance for, 6:209, 214, 218–220
 - GIPS definition, 6:289
 - informing, of referral arrangements, 1:163
 - knowledge of the law, 1:26–27
 - records as property of, 1:147
 - starting new, 1:112
 - total firm assets, 6:219–220, 292
 - venture capital, 5:30n.41
 - verification, 6:275–276
- first-stage financing, 5:31
- fiscal debt to GDP ratio, 3:78
- fiscal policy
 - in business cycle analysis, 3:54, 67–68
 - in country risk analysis, 3:78
 - defined, 3:60
 - and government structural policies, 3:72–73
 - and monetary policy, 3:68
- Fitch Ratings, 2:503; 4:98n.24, 192n.2
- FIX communications technology, 6:41
- fixed annuities
 - advantages and disadvantages of
 - variable and, 2:426–428
 - deferred, 2:424
 - immediate, 2:424–426
- fixed-coupon bonds, 4:9
- fixed-income arbitrage hedge fund strategies, 5:57
- fixed-income derivatives, 4:22
- fixed-income investments. *see also* bonds
 - and emerging market equities, 3:198
 - in global fixed income asset class, 3:198
 - in pension funds, 3:349
 - performance attribution for, 6:161–167
 - total return of, 6:164–165
- fixed-income mandates, 4:11–19
 - liability-based, 4:11–15
 - cash flow matching, 4:12–13
 - contingent immunization, 4:14
 - duration matching, 4:13–14
 - horizon matching, 4:14–15
 - total return, 4:15–19
 - active management, 4:17
 - pure/enhanced indexing, 4:16–17
- fixed-income markets, discounted cash flow models in, 3:35
- fixed-income portfolio management, 4:5–45
 - about, 4:5–6
 - and bond market liquidity, 4:19–23
 - alternatives to direct investment in bonds, 4:22
 - among sub-sectors, 4:20–21
 - effects of, 4:21–22
 - portfolio construction, 4:21–22
 - pricing, 4:21
 - credit portfolios
 - credit spreads, 4:200–206
 - credit strategy approaches, 4:206–225
 - defined, 4:191
 - international, 4:233–236
 - liquidity risk, 4:226–231
 - structured financial instruments, 4:236–241
 - tail risk, 4:231–233
 - index-based investment strategies, 4:48, 98–110
 - benchmark selection, 4:104–107
 - laddered bond portfolios, 4:107–110
 - passive bond market exposure
 - methods, 4:98–104
 - leverage, 4:27–31
 - futures contracts, 4:28–29
 - methods, 4:28–31
 - repurchase agreements, 4:29–30
 - risks, 4:31
 - securities lending, 4:30–31
 - structured financial instruments, 4:29
 - swap agreements, 4:29
 - using, 4:27–28
- liability-driven investing, 4:47–92
 - about, 4:47–52
 - for defined benefit pension plan, 4:78–88
 - interest rate immunization, 4:52–78
 - matching a portfolio to an index, 4:92–98
 - risks in, 4:88–92
- mandates, 4:11–19
 - liability-based, 4:11–15
 - total return, 4:15–19
- model for fixed-income returns, 4:23–27
 - decomposing expected returns, 4:23–26
 - estimation of inputs, 4:26
 - limitations of expected return decomposition, 4:26–27
- practice problems, 4:38–42
- roles of fixed-income securities in portfolios, 4:6–11
 - diversification, 4:6–8
 - inflation hedging, 4:9–10
 - regular cash flows, 4:8–9
- solutions to problems, 4:43–45
- taxation, 4:32–35
 - and investment vehicle choice, 4:33–34
 - principles of, 4:32–33
- yield curve strategies, 4:123–190
 - about, 4:123–124
 - for changes in market level/slope/curvature, 4:135–145

- foundational concepts, 4:124–132
- framework for evaluating yield curve trades, 4:178–184
- major types, 4:132–146
- portfolio performance in multiple curve environments, 4:169–178
- positioning strategy for a given market view, 4:146–169
- practice problems, 4:187–188
- solutions to problems, 4:189–190
- for stable yield curve, 4:133–135
- fixed-income portfolios
 - currency hedging for, 3:390
 - duration of, 5:363–366
- fixed-income premiums, for capital market expectations, 3:36–38
- fixed-income swaps, 4:29; 5:384–389
- fixed-maturity corporate bond ETFs, 4:108
- fixed-rate loans, 5:359–363
- fixed trusts, 2:300
- flash reports, 1:85
- Flat and Heavy Tax Regime, 2:230–232, 347
- Flat and Light Tax Regime, 2:230–232, 347
- flat tax structures, 2:227, 230–232
- flexibility
 - of annuities, 2:427
 - with exchange-traded instruments, 2:343
- flexible-premium variable life insurance, 2:500n.20
- float adjustment, 4:261n.10, 262
- floaters. *see* floating-rate bonds
- floating-coupon bonds, 4:9
- floating-rate bonds (floaters)
 - deleveraged, 4:184
 - inverse, 4:29, 184; 5:368–370
 - leveraged, 5:366–368
 - ratchet, 4:184
 - spread duration for, 4:194–195
- floating-rate loans
 - with caps, 5:323–327
 - with collars, 5:329–333
 - converting fixed- and, 5:359–363
 - with floors, 5:327–329
 - with FRAs, 5:218–219
 - inverse, 5:368–370
 - leveraged floating-rate notes, 5:366–368
- floating-rate notes (FRNs), 4:83; 5:366–368
- floating supply of shares, issue's, 4:261
- float-weighted indexes, 4:261, 262, 265
- floor brokers, 6:8
- floorlet payoff, 5:327, 328, 330, 331
- floorlets, 5:327
- floors, 5:327–329
- Flow of Funds Accounts of the United States-Z.1*, 3:158
- FLPs. *see* family limited partnerships
- FMPs. *see* financial market participants
- FNMA. *see* Federal National Mortgage Association
- FOFs. *see* funds of funds
- forced heirship rules, 2:274–276
- forced liquidation, 4:31
- Ford Credit, 5:197–198, 205
- Ford Foundation, 2:490
- Ford Motor Company
 - annual report, 5:196, 197, 204
 - debt and equity outstanding, 4:94
 - investment committee decision about, 2:137
- forecasts, 2:125–136
 - asset class returns, 3:89–104
 - cash and equivalents, 3:89–90
 - common shares, 3:93–97
 - currencies, 3:99–100
 - defaultable debt, 3:92
 - emerging market bonds, 3:92
 - and forecasting exchange rates, 3:100–103
 - and historical capital market expectations, 3:97–99
 - inflation-indexed bonds, 3:92–93
 - nominal default-free bonds, 3:91–92
 - real estate, 3:97
- biases in research for, 2:133–136
- capital market expectations, 3:13–23, 43–45
 - and biases of analyst methods, 3:18–19
 - conditioning information, 3:19–20
 - correlations in, 3:20–21
 - data measurement errors and biases, 3:14–16
 - economic data, 3:13–14
 - and *ex post* risk, 3:18
 - and GNP vs. GDP, 3:14
 - with historical estimates, 3:16–18
 - and model uncertainty, 3:23
 - psychological traps with, 3:21–22
- and conservatism bias, 2:54
- economic, 3:80–89
 - checklist approach, 3:86–89
 - econometric modeling, 3:80–81
 - economic indicators, 3:81–86
 - with economic indicators, 3:81–86
 - strengths and weaknesses of forecasting, 3:88–89
- equity market, 3:140–146
 - market EPS, 3:144, 146
 - portfolio suitability of, 3:142–143
 - types of forecasts, 3:140–141
 - using both forecasting approaches, 3:143–145
- equity risk premium, 3:34–35
- evaluating previous, 2:135
- exchange rates, 3:100–103
 - capital flows, 3:102
 - government intervention, 3:104
 - purchasing power parity, 3:101
 - relative economic strength, 3:101
 - savings–investment imbalances, 3:102–103
 - USD/euro exchange rate, 3:103
- management's influence on analysis, 2:131–133
- and overconfidence in forecasting skills, 2:126–131
 - case studies, 2:128, 130–131
 - remedial actions, 2:128–131
 - and representativeness bias, 2:58
- returns, 3:34–35
- short-term, 3:357
- foreign assets, 3:382–384
- foreign cash receipts, 5:252, 375–377
- foreign currency, 3:382
- foreign currency payments, 5:252–254
- foreign-currency portfolios, asset composition in, 3:390
- foreign-currency returns, 3:382
- foreign currency risk. *see* currency risk
- foreign debt to GDP ratio, 3:79
- foreign direct investment (FDI), 3:102
- foreign exchange, as asset class, 3:394, 395
- foreign exchange (FX) market
 - exchange-traded futures in, 3:410–411
 - forward, 3:377–380
 - spot, 3:375–377
 - swap, 3:380–381
- foreign exchange risk budgeting, 5:183–184
- foreign-market asset portfolio, risk of, 5:254–258
- foreign tax credit provisions for estate planning, 2:307–308
- foreign trade, business cycle and, 3:60
- formal tools for capital market expectations, 3:23–48
 - discounted cash flow models, 3:31–35
 - financial market equilibrium models, 3:40–48
 - and justification of capital market forecasts, 3:43–45
 - risk premium approach, 3:36–40
 - Singer–Terhaar approach, 3:40–48
 - statistical methods, 3:23–31
- formative-stage companies, venture capital for, 5:30
- former clients, soliciting, 1:109–114
- former employers
 - documents and files of, 1:110
 - in performance presentation, 1:99
- Fortune*, 2:145
- forward conversions with options, 2:345
- forward curves, 3:414–415; 6:81n.7
- forward justified P/E estimates, 3:133
- forward markets, foreign exchange, 3:377–380
- forward rate, implied, 4:148
- forward rate agreements (FRAs)
 - hedging with, 5:214–215
 - loans with, 5:215–219
- floating-rate loans, 5:218–219
- single-payment loans, 5:215–218
- forward rate bias, 3:403, 415
- forwards (forward contracts), 4:223. *see also* risk management applications
 - of forward and futures strategies
- basis risk with, 3:432n.34
- credit spread, 5:189
- currency management with, 3:410–417, 420, 421
- hedge ratios, 3:411–414
- roll yield, 3:414–416
- futures vs., 3:410–411; 5:258–260
- measuring credit risk of, 5:176
- non-deliverable, 3:440–441
- over-/under-hedging with, 3:421
- prepaid variable, 2:330, 350
- repricing, 5:186–187
- and swaps, 5:358
- forward swaps, swaptions and, 5:404

- foundation phase of life, 2:163
 - foundations, 2:184–185, 302
 - endowments vs., 2:485
 - external constraints for, 3:337–338
 - investment policy statements for, 2:488–489
 - portfolio management for, 2:484–489
 - legal and regulatory factors, 2:488
 - liquidity requirements, 2:486–487
 - return objectives, 2:486
 - risk objectives, 2:486
 - tax concerns, 2:487–488
 - time horizon, 2:487
 - unique circumstances, 2:488
 - 401(k) plans, 2:120n.4
 - company stock in, 2:122–123, 484n.9
 - excessive trading in, 2:124
 - fourth market, 6:15n.6
 - fragmentation
 - market, 6:9
 - order, 6:42
 - framing bias, 2:37–38, 65–67
 - in asset allocation, 3:365–366
 - consequences of, 2:67
 - detection and methods of overcoming, 2:67
 - diagnostic questions, 2:87
 - effect of, 2:65–66
 - and forecasting, 2:132–133
 - and loss-aversion bias, 2:72
 - and management's influence on forecasts, 2:132–133
 - and overinvestment in company stock, 2:123
 - framing stage (prospect theory), 2:24–26
 - franc, Swiss
 - benefits of currency exposure for, 3:391n.11
 - currency code, 3:375
 - in currency pairs, 3:376
 - as haven currency, 3:439
 - synthetic dual-currency bond in, 5:379–380
 - France
 - CLI, 3:82
 - Conference Board index, 3:84
 - corporate form of publicly-traded companies, 5:35
 - defined-benefit pension plan, 2:473
 - domestic tax relief, 2:308
 - equity index composition/characteristics, 4:268
 - equity real rates of return, 4:256
 - equity risk premium, 3:39
 - estate tax, 2:299
 - Eurozone membership, 3:9n.
 - expected returns for equities/bonds, 3:24
 - gift tax, 2:293, 295–296
 - in Hague Conference, 2:304
 - inflation-linked bonds, 4:9
 - long-term after-tax asset allocation, 2:293
 - market integration, 3:43
 - ownership of private business enterprises, 2:322
 - real estate market, 5:16, 25
 - real GDP growth rate, 3:32; 4:216
 - recognition of trusts, 2:274
 - tax-free gifts, 2:289
 - tax rates, 2:179
 - tax regime, 2:231, 347
 - trade partners, 3:83
 - wealth taxes, 2:306
 - franking, 2:228
 - Frank Russell Company, 6:137
 - FRAs. *see* forward rate agreements
 - fraud, 1:55
 - Freddie Mac. *see* Federal Home Loan Mortgage Corporation
 - Free Commission (UK), 2:473
 - free float
 - of market indexes, 3:474, 476
 - of shares, 4:261
 - French Monthly Business Survey, 3:83
 - Friendly Followers, 2:115
 - FRNs. *see* floating-rate notes
 - front-loaded strategies, 6:44
 - front office, 5:139
 - front-running, 1:159; 6:17
 - FTSE. *see* Financial Times Stock Exchange
 - FTSE 100 Index
 - composition and characteristics, 4:268
 - equitizing cash with, 5:236
 - and Fed model with UK data, 3:150
 - forecasting approaches for, 3:140
 - formulating CMEs from, 3:24
 - long-short investing, 4:300–302
 - as market index, 3:465
 - stock index futures, 4:275
 - synthetic index funds using, 5:233, 235
 - uses of, 3:471
 - FTSE EPRA/NAREIT Global Real Estate Index, 5:17–18, 48, 50
 - FTSE Industry Classification Benchmark (ICB), 5:14
 - FTSE International Ltd, 4:324
 - FTSE Pfandbrief Index, 4:106, 107
 - full replication approach
 - defined, 4:93
 - for passive investing, 4:271–272
 - fully funded pension plans, 2:465
 - functional duration. *see* key rate duration
 - fundamental anomalies, 2:33–34
 - fundamental factor model, 6:160–161
 - Fundamental Law of Active Management, 4:304
 - Fundamentals of Compliance (GIPS Section I.0), 6:216–220
 - excerpt of, 6:216
 - and GIPS compliance of firms, 6:209
 - implementation of, 6:219
 - fundamental-weighted indexes, 3:478–479
 - fundamental weighting, 3:474
 - funded status, 2:465
 - fund effects, hedge fund, 5:74–76
 - funding, travel, 1:35
 - funding currencies, 3:404
 - funding ratio, 3:275–276
 - funding risk, 5:143n.10
 - fund managers
 - benchmarks for, 3:466, 467, 472
 - performance of, 3:467, 472
 - relationships with, 1:32, 42
 - risk budgeting by, 5:184–185
 - fund mandate, change in, 1:142
 - funds, fair dealing between, 1:86–87
 - funds functioning as endowments, 2:490
 - funds of funds (FOFs)
 - defined, 5:58; 6:289
 - fund effects for, 5:74–75
 - and private equity, 6:259
 - roles of, 5:72
 - fund sponsors, on performance
 - evaluation, 6:121–122
 - fungibility, 3:212n.26
 - future long term accumulation, 2:242–243
 - future market expectations, and annuities, 2:427
 - future pension contributions, 2:469
 - futures (futures contracts). *see also* managed futures; risk management
 - applications of forward and futures strategies
 - asset allocation with, 5:241–250
 - adjusting asset allocation, 5:241–248
 - pre-investing in asset classes, 5:248–250
 - basis risk with, 3:432n.34
 - bond, 5:221–223
 - for currency exposure management, 4:223
 - for duration management, 4:137–139
 - equity index, 4:274–275
 - Eurodollar, 5:218–219, 259
 - exchange-traded, 3:410–411
 - for fixed-income portfolios, 4:28–29
 - forwards vs., 3:410–411; 5:258–260
 - government bond, 5:226
 - government/municipal, 5:226
 - interest rate, 4:73–76, 137–139
 - managed, 5:85–93
 - benchmarks, 5:86–87
 - defined, 5:7, 85
 - historical performance, 5:87–89
 - interpretation issues, 5:89
 - investment characteristics, 5:90
 - market for, 5:85–86
 - performance persistence, 5:92
 - in portfolios, 5:90–92
 - and skewness of hedge funds, 5:74
 - strategic asset allocation, 5:92–93
 - types of investments, 5:85–86
 - stock index, 4:274–275; 5:230, 232
 - T-note
 - for contingent immunization, 4:77
 - as derivatives overlay, 4:73–76
 - and duration management, 4:138
 - for interest rate immunization, 4:73–76
 - and liability-driven investing, 4:82
- futures commission merchants (FCMs), 1:123
- future value interest factor (FVIF), 2:233
- future wealth, predicting, 3:250
- FX market. *see* foreign exchange market
- ## G
- G–7, 3:82, 97
 - gains
 - capital, 2:179
 - accumulation using long- vs. short-term tax rate on, 2:258–260
 - and cost basis, 2:237–238

- deferred, 2:234–237
- ETFs and, 4:271
- and income, 2:181–182
- and investment policy statements, 2:179
- pass-through treatment, 4:33
- and sell disciplines, 4:302
- taxation of, 3:340, 341; 4:32–34, 256
- tax provisions for, 2:228
- in tax regimes, 2:229–231, 347
- currency, 4:24
- gain-to-loss ratio, hedge fund, 5:82
- gamblers' fallacy, 2:133–134, 141
- gaming, of cost measures, 6:23, 24
- gamma
 - defined, 5:152, 341
 - and risk of delta, 5:342–343
- GARP. *see* Global Association of Risk Professionals
- GBI. *see* goals-based investing
- GBI-EM Global. *see* JP Morgan Government Bond Index-Emerging Markets Global
- GBP/EUR. *see* Euro-sterling market
- GDP. *see* gross domestic product
- GDP deflator. *see* gross domestic product deflator
- General Electric (GE), 2:35; 4:267; 6:143
- generalized peso problem, 3:18n.10
- general partners, 6:266, 289
- generation skipping, 2:182, 296
- geometrical linking of returns, 6:224–225
- geometric average return (geometric mean return), 2:287; 3:24
- geometric smoothing rule, 2:491
- Georgia (country), 2:304
- German IFO Business Survey, 3:83
- German Industrial Production index, 3:83
- Germany
 - bond yields, 3:76
 - CLI, 3:82
 - Conference Board index, 3:84
 - corporate form of publicly-traded companies, 5:35
 - defined-benefit pension plans, 2:466n.3
 - equity indexes' composition/characteristics, 4:268
 - equity real rates of return, 4:256
 - equity risk premium, 3:39
 - Eurozone membership, 3:9n.
 - exit taxes, 2:306–307
 - expected returns for equities/bonds, 3:25
 - gift tax, 2:293
 - in Hague Conference, 2:304
 - home ownership, 2:388
 - inflation forecast, 3:57–58
 - inflation-linked bonds, 4:9
 - interest income taxation, 2:228, 233
 - long-term after-tax asset allocation, 2:293
 - market integration, 3:43
 - ownership of private business enterprises, 2:322
 - real GDP growth rate, 3:32; 4:216
 - recognition of trusts, 2:274
 - reunification, 3:74, 75
 - tax-advantaged savings accounts, 2:246
 - tax-free gifts, 2:289
 - tax rates, 2:179
 - tax regime, 2:231, 347
 - trade partners, 3:84
 - volatility index, 3:357
 - wealth taxes, 2:238
- GICS. *see* Global Industry Classification Standard
- gifts, 2:288–296
 - in AMC, 1:245
 - from clients, 1:39
 - and forced heirship rules, 2:275
 - legal constraints on, 2:184–185
 - limiting, 1:36
 - location of gift tax liability, 2:293–296
 - from related parties, 1:38–39
 - taxable, 2:291–293
 - taxes on, 2:277, 288
 - tax-free, 2:289–291
 - and wealth transfer taxes, 2:182
- Gilovich, Thomas, 2:55
- GIM. *see* global investable market
- Ginnie Mae. *see* Government National Mortgage Association
- GIPS. *see* Global Investment Performance Standards
- GIPS Advertising Guidelines, 6:246n.22, 273–275
- GIPS Council, 6:211, 212
- GIPS Executive Committee (EC), 6:211–214, 280, 283
- GIPS Guidance Statement for Country-Specific Taxation Issues, 6:280
- GIPS Guidance Statement on Composite Definition, 6:237, 239, 240, 243–244
- GIPS Guidance Statement on the Treatment of Carve-Outs, 6:245n.21
- GIPS Guidance Statement on the Treatment of Significant Cash Flows, 6:243
- GIPS Guidance Statement on the Use of Supplemental Information, 6:238, 280
- GIPS Handbook. see* *Global Investment Performance Standards Handbook*
- GIPS Valuation Principles, 6:270–273
 - disclosure requirements in, 6:248
 - fair and market value calculations, 6:221
 - for private equity investments, 6:267
 - for real estate investments, 6:260, 262
- glamour stocks, 4:279
- glide paths
 - asset allocation, 2:121
 - based on “120 minus your age” rule, 3:306
 - liability, 3:211
 - of life-cycle balanced fund, 3:189–190
 - in portfolio rebalancing, 3:353
- Global Association of Risk Professionals (GARP), 5:182
- global custodian, 5:140
- global financial crisis (2007–2009), 3:66
 - asset allocation changes due to, 3:361
 - CLO spreads, 4:239
 - credit market structural changes following, 4:229
 - and historical scenario analysis, 4:231, 232
 - liquidity in, 3:329, 366
 - and liquidity risk, 4:226–227
 - low interest rates caused by, 3:56–57
 - regional differences in effects, 4:233
 - and yen carry trade, 4:135
- global fixed income (asset class), 3:198
- global income tax structures, 2:226–232
 - common elements, 2:227–229
 - dimensions in tax planning, 2:232
 - general regimes, 2:229–232
 - international comparisons of income taxes, 2:227
- Global Industry Classification Standard (GICS), 4:324; 5:14
- global investable market (GIM), 3:40
- Global Investment Performance Standards (GIPS), 1:129; 3:467–468; 6:205–313
 - advertising guidelines, 6:273–275
 - after-tax return calculations, 6:280–283
 - background, 6:207–215
 - development of performance presentation standards, 6:210–211
 - governance of GIPS, 6:212
 - need for standards, 6:207–210
 - overview of standards, 6:212–215
 - defined, 6:206–207
 - glossary of terms, 6:287–293
 - keeping current with, 6:283–284
 - performance presentation with, 1:98
 - performance presentation without, 1:98
 - practice problems, 6:294–304
 - provisions, 6:215–270
 - Calculation Methodology (Section I.2), 6:216, 223–235
 - Composite Construction (Section I.3), 6:216, 235–245
 - Disclosure (Section I.4), 6:216, 245–251
 - Fundamentals of Compliance (Section I.0), 6:209, 216–220
 - Input Data (Section I.1), 6:216, 220–223
 - overview, 6:215–217
 - Presentation and Reporting (Section I.5), 6:216–217, 251–259
 - Private Equity (Section I.7), 6:217, 259, 266–268
 - Real Estate (Section I.6), 6:217, 259–265
 - Wrap Fee/Separately Managed Account Portfolios (Section I.7), 6:217, 268–270
 - solutions to problems, 6:305–313
 - TWR methodology for, 6:131
 - valuation principles, 6:270–273
 - disclosure requirements in, 6:248
 - fair and market value calculations, 6:221
 - for private equity investments, 6:267
 - for real estate investments, 6:260, 262
 - verification, 6:275–280
- Global Investment Performance Standards (GIPS) Handbook*, 6:211, 214

- globalization, currency management
and, 3:373–374
- global macro hedge fund strategies, 5:58, 74
- global market portfolio, 3:308
in asset-only allocation, 3:207–208
to mitigate illusion of control bias, 3:363
in passive management, 3:217
- Global Performance Presentation Standards Subcommittee, 6:211
- global private equity (asset class), 3:197
- global public equity (asset class), 3:197
- global tactical asset allocation (GTAA), 3:216, 356n.18
- GNMA. *see* Government National Mortgage Association
- GNP. *see* gross national product
- goal-based planning, 2:334–337
- goals
and ability to take risk, 2:174–175
and adviser-client relations, 2:118
classification of, 3:213–214
describing clients', 3:293–295
dynastic, 3:214
importance of, 3:213
of individuals vs. institutions, 3:290
legacy, 2:416
negative, 3:294n.30
personal, 3:214
philanthropic, 3:214
revising strategic asset allocation for
change in, 3:350
- goals-based allocation, 3:211–216, 289–306
defined, 3:192
description of client goals for, 3:293–295
for institutional investors, 3:192–193
investment objectives of, 3:194
issues related to, 3:304–306
liability-relative allocation vs., 3:193
loss aversion in, 3:362
and mental accounting, 3:364
module process in, 3:300–304
overall portfolio in, 3:298–300
process for, 3:291–293
rebalancing in, 3:226, 315
revisiting overall asset allocation in, 3:304
risk concepts relevant to, 3:195
sub-portfolio construction for, 3:295–298
- goals-based investing (GBI), 2:81–82; 3:192, 193
- Goldman Sachs Commodity Index (GSCI), 5:109–110, 114, 123. *see also* Standard & Poor's Goldman Sachs Commodity Index
- Goldman Sachs Group, Inc., 3:49; 5:162–166
- goodwill, 2:386n.2
- Google, Inc.
benchmark price, 6:53
initial public offering of, 5:32–33
share price of Microsoft vs., 4:278
venture capital for, 5:39
- Gordon (constant) growth model
for equity markets, 3:31–33
and Fed model, 3:148
- governance. *see also* investment governance
corporate, 5:139; 6:71
of GIPS, 6:212
mitigating behavioral biases with, 3:367
risk, 5:138–140
structures for, 3:180–181
- governance audit, 3:185–186
- governance models, 3:181
- governance reporting, 3:185
- governing laws, regulations and, 1:203–204
- government bond futures contracts, 5:226
- government bond portfolios, 5:223–226
- Government National Mortgage Association (Ginnie Mae; GNMA), 4:237
- Government Pension Fund Global (Norway), 3:309
- government pensions, 2:390
- government policy(-ies)
and business cycle, 3:61
and exogenous shocks, 3:74
structural, 3:72–73
- government regulations. *see* regulations
- government retirement benefits, 2:387
- Gramm-Leach-Bliley Act (1999), 2:520
- grandchildren, gifting to, 2:182, 184, 296
- Granger, Clive W. J., 3:27n.25
- Granger causation, 3:20n.17
- grantors, 2:183–184, 299–300
- gratuitous transfers
charitable, 2:298–299
of excess wealth, 2:288
lifetime, 2:277
- Greece
Eurozone membership, 3:9n.
in Hague Conference, 2:304
interest income taxation, 2:233
tax regime, 2:231, 347
- green bonds, 4:225
- Grinold-Kroner model, 3:33–35
- gross domestic product (GDP)
in business cycles, 3:51
in econometric modeling, 3:80
and economic growth trends, 3:70–72
fiscal debt to GDP ratio, 3:78
foreign debt to GDP ratio, 3:79
GNP vs., 3:14
growth rate for, 3:32–33; 4:216
nominal, 3:32, 65
real, 3:32–33
- gross domestic product (GDP) deflator, 2:492–493
- Grossman-Stiglitz paradox, 2:29
- gross national product (GNP), 3:14
- gross-of-fees return
GIPS definition, 6:250, 289
for real estate, 6:261
- gross premiums, life insurance, 2:411–412
- group decision making, 1:129
- group research, 1:129, 132
- growth accounting, neoclassical approach, 3:126–127, 129–130
- growth-at-a-reasonable price investment style, 4:281
- growth investment style
consistent, 4:280
defined, 3:469n.9
and fundamental anomalies, 2:33–34
indexes with, 4:291–293
and Microsoft, 4:278
sell disciplines, 4:302
value vs., 4:277–278
- growth managers, 3:467
- growth requirements, return objectives and, 2:172
- growth stocks, performance of, 2:144
- GSCI. *see* Goldman Sachs Commodity Index
- G-spread, 4:200–201
- GTAA. *see* global tactical asset allocation
- guaranteed investment contracts, 2:504
- guaranteed minimum withdrawal benefit for life rider, 2:424
- Guardian (BB&K classification), 2:110
- guideline constraints, 4:225
- Gulf Cooperation Council, 3:76
- H**
- Hague Conference on Private International Law, 2:304–305
- Hague Convention of the Law Applicable to Trusts and Their Recognition, 2:304–305
- halo effect, 2:144
- “handle,” currency quote, 3:376
- Hang Seng Index, 4:93
- haven currencies, 3:439
- Hayward, Paul, 2:346n.7
- health maintenance organization (HMO), 2:421
- health/medical insurance, 2:420–421
in case study, 2:434
direct costs of, 2:403n.3
recommendations for, in case study, 2:438
- health risk, 2:403–404
- Heavy Capital Gain Tax Regime, 2:229–231, 347
- Heavy Dividend Tax Regime, 2:229–231, 235, 347
- Heavy Interest Tax Regime, 2:229–231, 347
- hedged equity strategies, 5:58
- Hedge Fund Composite Index (HFCI), 5:66, 110–111
- Hedge Fund Intelligence, 5:60, 61
- hedge fund market, 5:56–60
size of, 5:60
types of hedge fund investments, 5:57–59
- HedgeFund.net, 5:61
- Hedge Fund Research (HFR), 3:469; 5:60, 61, 95
- hedge funds, 5:55–84
about, 5:55–56
benchmarks, 5:60–62, 70–71; 6:143–146
defined, 5:7
due diligence, 5:76–78
fund effects, 5:74–76
historical performance, 5:62–67
and institutional investors, 2:526

- interpretation issues, 5:67–71
 - backfill bias, 5:70
 - biases in index creation, 5:67–68
 - relevance of past data on performance, 5:69
 - stale price bias, 5:69–70
 - survivorship bias, 5:69
- investment characteristics, 5:71–72
- investor size constraints for, 3:325
- manager universes for, 3:469
- performance evaluations, 5:78–84
 - consistency, 5:82–84
 - correlations, 5:82
 - performance appraisal measures, 5:80–82
 - skewness and kurtosis, 5:82
 - volatility and downside volatility, 5:79–80
- in portfolios, 5:72–74
 - hedge funds as diversifiers, 5:72–73
 - historical performance, 5:73–74
 - skewness and hedge funds, 5:74
 - types of investments, 5:57–59
- hedge fund structure, distressed securities with, 5:94
- hedge ratios
 - defined, 3:381
 - with forward contracts, 3:411–414
 - minimum-variance, 3:431–433
- hedges
 - core, 3:434
 - costless, 3:389n.10
 - delta, 3:405; 5:333–343
 - dynamic, 3:412–414, 421
 - inflation
 - assets as, 4:255–256
 - commodities as, 5:53–54
 - fixed-income securities as, 4:9–10
 - real estate as, 5:20
 - macro, 3:430
 - natural, 3:435
 - static, 3:412
 - tail risk, 4:231–232
 - Texas, 3:432n.34
- hedging. *see also* currency hedging and concentrated stock positions, 6:77–78
 - cross, 2:355–356; 3:428–430
 - currency exposure, 4:223, 236
 - defined, 3:276; 5:214
 - delta, 5:335–342
 - and G-spread, 4:200
 - inflation, 4:9–10, 255–256
 - interest rate, 4:88–90, 200–203 (*see also* immunization strategies)
 - and liability-driven investing, 4:82–86
 - and liability-relative allocation, 3:282–285
 - other approaches vs., 3:286–287
 - over- and under-, 3:421
 - proxy, 3:428–430
 - of single-stock positions, 2:341, 348–354
 - cashless collars, 2:349–350
 - prepaid variable forwards, 2:350
 - purchasing of puts, 2:348–349
 - selecting best strategy, 2:352–354
 - with swaps, 5:362
 - tail risk, 4:232–233
- hedging ratio, in liability-driven investing, 4:83, 84, 86
- Heine, Max L., 5:94
- heirs, forced heirship rules, 2:274–276
- HEPI. *see* Higher Education Price Index
- herding behavior, 2:80, 140
- Herstatt risk, 5:146
- heuristics, 2:22n.13, 23, 67
- HFCI. *see* Hedge Fund Composite Index
- HFR. *see* Hedge Fund Research
- HFRX Convertible Arbitrage Index, 5:68
- HFRX Distressed/Restructuring Index, 5:68, 95–97
- HFRX Equal Weighted Strategies Index, 5:68
- HFRX Equity Hedge Index, 5:68
- HFRX Equity Market Neutral Index, 5:68
- HFRX Event Driven Index, 5:68
- HFRX Fixed Income-Credit Index, 5:96
- HFRX indexes, 5:61, 68
- HFRX Merger Arbitrage Index, 5:68
- HICP. *see* Eurozone Harmonized Index of Consumer Prices
- hidden order, 6:8–9
- Higher Education Price Index (HEPI), 2:492–493
- highest-in, first-out (HIFO) tax lot accounting, 2:258
- highest requirement, following, 1:28
- high-net-worth investors (HNWI), 2:272–273. *see also* portfolio management, for individual investors
- high-water mark (HWM), 4:315; 5:59
- high-wealth-level investor with emotional biases (case study), 2:88–92
 - behaviorally-modified portfolio decision, 2:92
 - diagnostic tests, 2:89–91
 - effect of biases, 2:91
 - moderate or adapt recommendation, 2:91–92
- high-yield (HY) bonds
 - corporate, 4:192
 - expected return and taxation of, 3:343–344
 - strategic asset location for, 3:346–348
- high-yield corporate bond portfolios
 - credit mitigation risk, 4:194
 - credit risk, 4:193–194
 - interest rate risk, 4:195–198
 - liquidity and trading, 4:198–199
 - spread risk, 4:194–195
- high-yield investment style, 4:279–280; 5:98
- hindsight bias, 2:62
 - of analysts, 2:127
 - in asset allocation, 3:363
 - consequences of, 2:62
 - detection and methods of overcoming, 2:62–63
 - diagnostic questions, 2:87
 - and market bubbles, 2:143
 - overcoming, 2:128
 - and regret, 2:141
- historical analysis
 - for asset allocation, 3:288
 - of beta relative to the account, 6:142
 - and capital market expectations, 3:7, 10, 11
 - Grinold–Kroner model, 3:33–35
- historical data, in Monte Carlo simulations, 2:199
- historical estimates, capital market expectations from, 3:16–18
- historical method of calculating VaR, 5:160–166
- historical scenario analysis, 4:231–232
- historical simulation method, 5:161–162
- historical statistical approach to formulating CMEs, 3:24–25
- hitting the bid, 3:377
- HMO. *see* health maintenance organization
- H-model for estimating P/E, 3:132–139
- HNWI. *see* high-net-worth investors
- holding period
 - and asset location, 2:253
 - and capital gains tax rate, 2:236
- holding period management, 2:258–260
- holding period rate of return, 4:58
- holdings-based style analysis, 4:282–283, 288–294
- holistic balance sheet. *see* economic balance sheet
- home bias (home-country bias)
 - in asset-only allocation, 3:208
 - and availability bias, 3:366
 - and currency management, 3:374
 - in portfolio construction, 2:124
 - and value vs. growth stocks, 2:144–145
- home currency, 3:381
- home equity, 2:177–178
- homeowner's insurance, 2:418–420
- homestead, 2:177
- Hong Kong
 - Asian financial crisis (1997), 3:329
 - Economic Freedom Index, 3:78
 - exchange rate pegging, 3:76
 - offshore banking centers, 2:310–311
 - regulatory constraints in, 3:325
 - REITs, 5:14
 - RNDs' assets in, 2:306
 - and SPDR S&P China ETF, 3:132
 - tax regime, 2:231, 347
 - territorial tax system, 2:305
 - trade partners, 3:83
- Hong Kong dollar, 4:236
- Horan, Stephen M., 2:337n.5
- horizon matching, 4:14–15
- horizon yield, 4:58
- hot issue securities, 1:84
- Hotspot FX, 6:15, 42
- household savings rate, 3:61
- house money effect, 2:71
- human capital
 - defined, 2:382
 - diversification of investments in, 2:483–484
 - in economic balance sheets, 2:396–397
 - effect of, on asset allocation policy, 2:440–443
 - financial vs., 2:387
 - and government structural policies, 3:73
 - as implied asset, 2:279
 - in life-cycle balanced funds, 3:188–190
 - in mean–variance optimization, 3:247–249
 - in net wealth, 2:399–400
 - “120 minus your age” rule, 3:306
 - in risk management for individual investors, 2:383–386
 - in time horizon, 3:331

- human capital risk, 2:442–443
 - human life value method
 - of calculating life insurance needs, 2:412
 - in case study, 2:435–438
 - human resources, in AMC, 1:252
 - Humphrey-Hawkins report, 3:147
 - Hungary
 - in Hague Conference, 2:304
 - income tax regime, 2:231, 347
 - taxation of wealth, 2:306
 - hunter strategies, 6:45
 - hurdle rate, 5:35
 - HWM. *see* high-water mark
 - HY bonds. *see* high-yield bonds
 - hybrid markets, 6:17
 - hybrid pension plans, 2:463, 483–484
 - hyperbolic discounting, 2:76
 - hypothetical scenario analysis, 4:231–232; 5:172
 - I**
 - IAS. *see* International Accounting Standards
 - IASB. *see* International Accounting Standards Board
 - IBM, 4:278; 5:161–162
 - ICAPM. *see* international CAPM-based approach
 - ICB. *see* FTSE Industry Classification Benchmark
 - ICE. *see* Intercontinental Exchange
 - iceberg order, 6:8–9
 - Iceland, 2:304
 - idiosyncratic risks, 2:443; 5:229n.19
 - IFRS. *see* International Financial Reporting Standards
 - IG bonds. *see* investment grade bonds
 - ILGS. *see* Index-Linked Gilts
 - illegal activity, disclosure of, 1:104
 - illiquid assets
 - allocation to, 3:265–266
 - holdings of individual investors in, 2:177–178
 - and rebalancing, 3:226
 - illiquidity
 - of emerging market currencies, 3:439
 - of family limited partnerships, 2:297–298
 - of private equity investments, 5:39
 - illiquidity premium, 3:36
 - illusion of control bias, 2:61, 332
 - of analysts, 2:127
 - and asset allocation, 3:362–363
 - consequences of, 2:61
 - detection and methods of overcoming, 2:61
 - diagnostic questions, 2:88
 - of management, 2:132
 - illusion of knowledge, 2:74, 126, 143, 331
 - IMCA. *see* Investment Management Consultants Association
 - IMF. *see* International Monetary Fund
 - immediate annuities, 2:422–423
 - fixed, 2:424–426
 - variable, 2:424
 - immunization strategies, 4:52–78
 - cash flow matching, 4:12–13
 - contingent, 4:14, 77–78
 - defined, 4:12, 48, 52
 - duration matching, 4:13–14
 - for multiple liabilities, 4:64–78
 - cash flow matching, 4:64–67
 - contingent immunization, 4:77–78
 - derivatives overlay, 4:73–76
 - duration matching, 4:67–73
 - with single fixed-income bond, 4:53
 - for single liability, 4:52–63
 - implementation choices (asset allocation), 3:216–221
 - of allocations to asset classes, 3:217–219
 - of asset class weights, 3:216–217
 - for global market portfolio, 3:209
 - risk budgeting perspectives in, 3:221
 - implementation shortfall, 6:24–28
 - implementation shortfall strategies, 6:43–44
 - implicit advice, 2:123
 - implied annual capital gains tax rate, 3:341n.11
 - implied forward rate, 4:148
 - implied yield, bond, 5:221
 - inadequate compliance procedures, 1:124
 - inadequate supervision, 1:124–125
 - incentives
 - for analysts, 2:128
 - establishing, 1:122
 - for overinvestment in company stock, 2:123
 - incident-reporting procedures, 1:109
 - inclusion bias, 5:70
 - income
 - for banks, 2:522
 - and consumption, 3:69–70
 - corporate share of, 2:506
 - from dividends, 2:228
 - in econometric modeling, 3:81
 - endowment spending based on, 2:490
 - expected return for, 3:34
 - for immediate fixed annuities, 2:424–425
 - interest
 - accrual taxes on, 2:233–234
 - and asset location, 2:253
 - heavy interest tax regime, 2:229–231
 - taxation of, 3:340
 - tax provisions for, 2:227–228
 - net investment, 2:487–488
 - and objectives for concentrated positions, 2:328
 - pension, 2:469
 - permanent income hypothesis, 3:69–70
 - policyholder's share of, 2:506
 - unrelated business, 2:487, 495
 - yield, 4:23
- income approach to setting return requirements, 2:172
 - income beneficiaries, of trusts, 2:184–185
 - income return(s), 3:34; 6:260, 289
 - income taxes, 2:347
 - and cross-border estate planning, 2:305–306
 - in estate planning, 2:276
 - and gains taxes, 2:181–182
 - global structures, 2:226–232
 - common elements, 2:227–229
 - dimensions in tax planning, 2:232
 - general regimes, 2:229–232
 - international comparisons of income taxes, 2:227
 - and investment policy statements, 2:179
 - incremental VaR, 5:170
 - indemnity plans, 2:421
 - independence, in AMC, 1:245
 - Independence and Objectivity [Standard I(B)], 1:30–42
 - application of the standard, 1:36–42
 - compliance procedures, 1:35–36
 - guidance, 1:30–35
 - buy-side clients, 1:31
 - credit rating agency opinions, 1:33–34
 - fund manager and custodial relationships, 1:32
 - influence in manager selection/procurement process, 1:34
 - investment banking relationships, 1:32–33
 - issuer-paid research, 1:34–35
 - performance measurement and attribution, 1:33
 - public companies, 1:33
 - travel funding, 1:35
 - text of, 1:16, 30
 - Independence axiom (utility theory), 2:9
 - independence policies, 1:36
 - independent analysis, 1:69
 - independent contractors, employees vs., 1:108–109
 - independent events, emotional biases about, 2:133
 - independent foundations, 2:484–485
 - Independent Individualists, 2:115–116
 - independent practice, 1:106
 - independent professional judgment, 1:210
 - index-based investment, for fixed-income portfolios, 4:48, 98–110
 - benchmark selection, 4:104–107
 - laddered bond portfolios, 4:107–110
 - passive bond market exposure methods, 4:98–104
 - indexed portfolios, 4:267, 270–276
 - indexes. *see also specific indexes*
 - as benchmarks, 3:479, 480
 - bond, 4:92–98
 - capitalization-weighted, 3:477–480
 - composition and characteristics of, 4:266–269
 - diffusion, 3:82
 - equal-weighted, 3:478; 4:261–263, 265–266
 - equity style, 4:277, 291–294
 - float-weighted, 4:261, 262, 265
 - fundamental-weighted, 3:478–479
 - limitations of data on, 3:13, 14
 - managing to, 1:93
 - market
 - about, 3:464
 - as benchmarks, 3:480
 - benchmarks vs., 3:465
 - broad market indexes, 3:469; 6:136–137
 - construction of, 3:473–477
 - index weighting schemes, 3:477–481

- in passive and active management, 3:217–218
- passive equity investing with, 4:260–269
 - benchmark index selection, 4:263–266
 - composition and characteristics of major indexes, 4:266–269
 - index weighting choices, 4:260–266
 - price-weighted, 3:478; 4:260–262, 264
 - rebalancing of, 3:476; 4:291–293
 - re-basing of, 3:14
 - selecting benchmark, 4:263–266
 - style, 4:277, 291–294; 6:137
 - types of, 6:136–137
 - value-weighted, 4:261, 262, 264–265
- index funds
 - efficient market hypothesis and, 6:22
 - synthetic, 5:233–236
- indexing
 - in bottom-up portfolio construction, 4:215
 - defined, 4:257
 - enhanced
 - and bond market exposure, 4:93–94
 - as equity investment approach, 4:257, 258
 - and fixed-income portfolio management, 4:16–17
 - semiautomatic equity investing, 4:303–305
 - for equity investments, 4:257
 - and fixed-income portfolio management, 4:16–17
 - pure, 4:16, 17, 93
- indexing risk factors, 4:95–96
- Index-Linked Gilts (ILGS), 3:92–93
- Index of Leading Economic Indicators (LEI), 3:84–86
- index-tracking strategies, 2:355
- index weighting, 3:477–481
 - capitalization-weighted indexes, 3:477–478
 - defining, for index construction, 3:473–474
 - equal-weighted indexes, 3:478
 - fundamental-weighted indexes, 3:478–479
 - with index used as benchmark, 3:479
 - and market index as benchmarks, 3:480
 - for passive equity investing, 4:260–266
 - price-weighted indexes, 3:478
- India
 - capital gains tax, 2:228
 - in Hague Conference, 2:304
 - tax rates, 2:179
 - tax regime, 2:231, 347
 - wealth taxes, 2:306
- Indian rupee, 3:375, 440
- indicators, economic. *see* economic indicators
- indifference curve analysis, 2:15–17
- indirect investment
 - in commodities, 5:46–47
 - of venture capital, 5:34–35
- indirect loss, of property, 2:402–403
- individual balance sheet, 2:394–400
 - changes in net wealth, 2:397–400
 - economic (holistic) balance sheet, 2:396–397
 - traditional balance sheet, 2:395–396
- individual behavior, 2:7–20
 - in behavioral finance, 2:14–19
 - attitudes toward risk, 2:17–19
 - challenges to rational economic man, 2:15
 - utility maximization, 2:15–17
 - BFMA and BFMI, 2:7–8
 - and neuro-economics, 2:19–20
 - in traditional finance, 2:8–14
 - perfect rationality, self-interest, and information, 2:12
 - rational economic man, 2:11–12
 - risk aversion, 2:13–14
 - utility theory and Bayes' formula, 2:8–11
- individual investors. *see also* constraints of individual investors; portfolio management, for individual investors; risk management, for individual investors
 - characteristics of
 - psychological profiling, 2:165–171
 - situational profiling, 2:162–165
 - CME research, 3:8
 - extended portfolio assets and liabilities of, 3:188
 - goals-based allocation for, 3:289–290
 - goals of, 3:350
 - investment objectives of, 3:181
 - liabilities for, 3:193, 331
- Individualist (BB&K classification), 2:110
- Individualist investors, 2:169
- individual local market, 3:42
- Individual Retirement Accounts (IRAs), 2:246
- individual risk exposures, 2:400–405
 - earnings risk, 2:400–401
 - health risk, 2:403–404
 - liability risk, 2:403
 - longevity risk, 2:402
 - premature death risk, 2:401
 - property risk, 2:402–403
- Indonesia
 - in Asian currency crisis, 3:329
 - export partners, 3:83
 - tax regime, 2:231, 347
- industry classification, of equities, 4:323–324
- Industry Classification Benchmark, 4:324
- industry experts, 1:59–60
- industry sectors. *see* economic sectors
- inertia, 2:77, 120–121
- inferential statistics, 3:23
- inflation
 - and ALM, 4:49
 - and annuity income, 2:428
 - in business cycle analysis, 3:55–59
 - and nominal default-free bonds, 3:91–92
 - and P/E ratios, 3:97
 - and portfolio monitoring, 6:81–82
 - reducing exposure to, 3:201
 - and returns for endowments, 2:492–494
- inflation hedges
 - assets as, 4:255–256
 - commodities as, 5:53–54
 - fixed-income securities as, 4:9–10
 - real estate as, 5:20
- inflation-indexed bonds, 3:92–93
- inflation-linked bonds, 4:9–10, 50
- inflation premiums, 3:36–38
- inflation risk, 2:324
- inflection point, inventory cycle, 3:52
- information
 - account, 1:77
 - on applicable laws, 1:27
 - in bottom-up approach, 4:224
 - from brokers, 6:18
 - for capital market expectations, 3:8–10
 - conditioning, 3:19–20
 - confidential
 - about CFA program, 1:165–166
 - about firms, 1:115
 - conveying, 1:205
 - disclosing, 1:103–105
 - possessing, 1:103
 - considering, before taking action, 1:77
 - dissemination
 - simultaneous, 1:85
 - time frame between decision and, 1:84–85
 - trading prior to, 1:161–162
 - for economic analysis, 3:104–105
 - insider, 1:210–211
 - and market liquidity, 6:20
 - material, 1:57
 - in AMC, 1:255
 - analyst recommendations as, 1:65–66
 - selective disclosure of, 1:64
 - material nonpublic (*see* material nonpublic information)
 - misrepresentation of (*see* misrepresentation)
 - nonpublic, 1:58, 63–66, 158
 - acting on, 1:63
 - analyst recommendations as, 1:65–66
 - controlling, 1:64
 - defined, 1:58
 - standards for priority of transactions with, 1:158
 - out-of-date, 1:52–53
 - perfect, 2:12, 15
 - searching for, 2:135
 - supplemental, 6:238, 280, 292
 - third-party confirmation of, 1:251–252
 - verification of outside, 1:47
- information-based manipulation, 1:68, 72–73
- information coefficient, 4:304
- information-motivated traders, 6:33–35
- information-processing biases, 2:63–69
 - anchoring and adjustment bias, 2:63–64
 - availability bias, 2:67–69; 3:366
 - framing bias, 2:65–67; 3:365
 - mental accounting bias, 2:64–65; 3:363
- information ratio (IR)
 - in equity investment approaches, 4:258
 - portfolio managers', 5:184
 - as risk-adjusted performance appraisal measure, 6:170–171
- infrastructure, 3:73
- infrastructure funds, 5:14, 15
- Inger family (case study), 2:159–162, 164–165, 170–171, 173–175, 177, 178, 184–187, 194–196

- inheritance, 2:277
- inheritance tax, 2:277n.8, 288
- inherited securities, endowment bias and, 2:78, 79
- initial public offerings (IPOs)
 - and conflicts of interest, 1:158–159
 - fair dealing in, 1:87
 - Google, Inc., 5:32–33
 - in monetization strategies, 2:361
 - private equity for, 5:30
- initial recovery phase (business cycle), 3:53, 54
- Input Data (GIPS Section I.1), 6:220–223
 - excerpt of, 6:216
 - implementation of, 6:223
- inputs, model, 1:72
- input uncertainty, 3:23
- inside ask, 6:10–11
- inside bid, 6:10
- inside bid–ask spread, 6:11
- inside buildup of cash values, 2:506
- inside quote, 6:11
- insider exposure, 5:387–389
- insider information, 1:210–211
- insider status, 2:190
- inside spread, 6:11
- Institute of Chartered Financial Analysts, 6:210
- Institute of Supply Management (ISM), 3:62, 85, 104
- institutional constraints, on
 - concentrated positions, 2:329–330
- institutional investors
 - CME research, 3:8
 - constraints for, 3:325; 6:71
 - defined, 2:462
 - extended portfolio assets of, 3:188
 - goals-based allocation for, 3:192–193
 - goals of, 3:290, 350
 - indexing portfolios of, 4:271
 - liabilities for, 3:188, 193, 275
 - and loss aversion, 3:362
 - portfolio management for, 2:461–544
 - about, 2:462
 - banks, 2:519–526
 - endowments, 2:489–499
 - foundations, 2:484–489
 - insurance industry, 2:499–519
 - investment intermediaries, 2:526–527
 - pension funds, 2:463–484
 - practice problems, 2:530–536
 - solutions to problems, 2:537–544
 - portfolio rebalancing for, 3:344–345
- in-substance defeasance, 4:65. *see also* accounting defeasance
- insurable interest, 2:408
- insurance(s)
 - disability income insurance, 2:417–418, 434, 438
 - health/medical, 2:420–421
 - in case study, 2:434
 - direct costs of, 2:403n.3
 - recommendations for, in case study, 2:438
 - health/medical insurance, 2:420–421
 - liability insurance, 2:421–422
 - life insurance, 2:405–416
 - elements of, 2:407–409
 - investment policy statements for, 2:508–511
 - portfolio management for, 2:499–511
 - pricing of, 2:409–415
 - types of, 2:406–407
 - uses of, 2:406
 - non-life insurance, 2:511–519
 - legal and regulatory factors, 2:517
 - liquidity requirements, 2:515
 - portfolio policy determination, 2:517
 - return objectives, 2:513–515
 - risk objectives, 2:512–513
 - tax concerns, 2:516–517
 - time horizon, 2:515–516
 - other types of, 2:422
 - property insurance, 2:418–420
 - automobile insurance, 2:420
 - in case study, 2:434
 - homeowner's insurance, 2:418–420
 - recommendations for, in case study, 2:439–440
 - protective puts as, 5:292
- insurance companies
 - and asset allocation constraints, 3:335
 - integrated asset–liability approach for, 3:285
 - life insurance
 - investment policy statements for, 2:508–511
 - portfolio management for, 2:499–511
 - non-life insurance, 2:511–519
 - legal and regulatory factors, 2:517
 - liquidity requirements, 2:515
 - portfolio policy determination, 2:517
 - return objectives, 2:513–515
 - risk objectives, 2:512–513
 - tax concerns, 2:516–517
 - time horizon, 2:515–516
- insurance industry
 - life insurance companies, 2:499–511
 - non-life insurance companies, 2:511–519
 - portfolio management for, 2:499–519
- insurance program analysis, 2:433–440
 - current insurance plan in, 2:434
 - program review in, 2:434–438
 - recommendations from, 2:438–440
- integrated asset–liability approach, 3:285–286
 - compared to other approaches, 3:286–287
 - defined, 3:276
- integrated markets, 3:42–43
- integrity, 1:55, 169; 6:20
- Integrity of Capital Markets [Standard of Professional Conduct II], 1:56–73
 - eleventh edition revision, 1:7
- Market Manipulation [Standard II(B)], 1:16, 68–73
 - application of the standard, 1:69–73
 - guidance, 1:68–69
 - text of, 1:16, 68
- Material Nonpublic Information [Standard II(A)], 1:16, 56–67
 - application of the standard, 1:63–67
 - case study, 1:210
 - compliance procedures, 1:60–63
 - guidance, 1:56–60
 - text of, 1:16, 56
 - text of, 1:16
- Intel Corporation, 4:263–266; 5:39
- intellectual property, 5:44
- Intercontinental Exchange (ICE), 4:76, 103
- interdepartmental communications, 1:61
- interdepartmental referral arrangements, 1:163
- interest
 - accrual taxes on, 2:233–234
 - carried, 5:35; 6:266, 287
 - dilution of, 5:45
 - effective
 - with calls, 5:314, 316
 - with caps, 5:324–326
 - with collars, 5:331, 332
 - with floors, 5:328, 329
 - with puts, 5:319–321
 - future value interest factor, 2:233
 - insurable, 2:408
 - net interest margin, 2:521
 - net interest spread, 2:503
 - retained, 2:184–185
 - short, 3:357
 - in tax regimes, 2:229–232, 347
- interest income
 - accrual taxes on, 2:233–234
 - as asset allocation consideration, 3:340
 - and asset location, 2:253
 - heavy interest tax regime, 2:229–231
 - tax provisions for, 2:227–228
- interest-only strips (IOs), 4:137n.8
- interest rate(s)
 - and currency exposure management, 4:222–223
 - and currency risk, 4:236
 - and duration management, 4:135–136
 - and duration matching, 4:13
 - and exchange rate, 3:75–77, 101
 - and inflation-linked bonds, 4:9
 - long-term real risk-free, 3:37
 - and monetary policy, 3:63, 65–66
 - negative, 3:65–67
 - neutral level of, 3:63
 - nominal, 3:36; 4:9
 - portfolio positioning in anticipation of
 - change in, 4:150–151
 - real, 3:36, 37, 201; 4:9
 - risk-free, 3:36, 37; 4:195, 196
 - uncovered interest rate parity theorem, 3:402
 - volatility in, 4:203
- interest rate differential notes, 4:184
- interest rate futures
 - for duration management, 4:137–139
 - for immunizing multiple liabilities, 4:73–76
- interest rate management effect, 6:165
- interest rate options
 - and options on futures, 5:344
 - risk management applications, 5:312–333
 - calls with borrowing, 5:313–318
 - caps with floating-rate loans, 5:323–327
 - collars with floating-rate loan, 5:329–333

- floor with floating-rate loan, 5:327–329
 - puts with lending, 5:318–323
- interest rate risk
 - banks' management of, 2:521
 - in corporate bond portfolios, 4:195–198
- forward and futures strategies for managing, 5:215–227
- and future market expectations, 2:427
- immunization (*see* immunization strategies)
- for insurance companies, 2:501–502
- with liability-driven investing, 4:88–92
- MBS and, 4:238
- measuring, 4:221–222
- swap strategies for managing, 5:359–370
 - converting floating- and fixed-rate loans, 5:359–363
 - duration of fixed-income portfolios, 5:363–366
 - risk of structured notes, 5:366–370
- top down approach for managing, 4:222
- interest rate swaps, 4:22, 29
 - currency swaps vs., 5:374
 - for DB pension plan derivatives strategy, 4:82–88
 - and duration management, 4:139–140
 - uncollateralized, 4:89–90
- interest rate swaptions, 5:390–397
 - in anticipation of future borrowing, 5:390–394
- terminating swaps with, 5:394–397
- interests
 - client, 1:78, 244–245
 - minority, 2:297; 5:39, 40
 - non-controlling, 2:339
 - perfect self-interest, 2:12
- interest spread, 2:521
- intergenerational equity, 2:486
- internal capital requirements, in capital allocation, 5:192
- internal dispersion, 6:250–255, 289
- internal rate of return (IRR)
 - linked, 6:131–132
 - modified, 6:225–227
 - money-weighted rate of return, 6:128–131
 - of private equity, 5:39
 - for real estate, 6:262–265
 - since inception, 6:262–265, 267–268, 292
- Internal Revenue Code, 2:488, 495; 4:273
- Internal Revenue Service (IRS), 2:487
- International Accounting Standards (IAS)
 - derivatives, 5:149
 - investments by insurance companies, 2:507
 - pension expense, 2:469
- International Accounting Standards Board (IASB), 5:148, 149; 6:270
- international CAPM-based approach (ICAPM), 3:40–48
- international credit portfolios, 4:233–236
 - currency risk, 4:236
 - emerging markets credit, 4:235
 - legal risk, 4:236
 - liquidity considerations, 4:236
 - relative value in, 4:233–235
- international currency exposure, 3:381–384
- international diversification, 5:382–384
- International Financial Reporting Standards (IFRS), 6:262
- international interactions in economic analysis, 3:75–80
 - for emerging markets, 3:77–80
- interest rate/exchange rate linkages, 3:75–77
- macroeconomic linkages, 3:75
- International Monetary Fund (IMF), 3:77, 104; 5:149
- International Securities Exchange, 6:15, 42
- International Swaps and Derivatives Association (ISDA), 4:89–90
- internet bubble (1995–2001), 3:222–223
- Interpretations Subcommittee, 6:212
- interquartile range, 6:254–255
- intestate (term), 2:273
- intrafirm pressure, 1:37, 42
- intraperiod external cash flows, 6:123–125
- intrinsic value, currency option, 3:418
- introduction (investment policy statement), 3:184
- inventory cycle, 3:51, 52
- inventory/sales ratio, 3:52
- inverse floaters, 4:29, 184; 5:368–370
- investability
 - of benchmarks, 6:135, 140
 - of hedge fund indexes, 5:62, 68
 - market index, 3:475
- investment(s)
 - direct, 3:102; 5:34, 46
 - in econometric modeling, 3:81
 - and economic growth, 3:70–71
 - eligible, 2:507
 - failed, 1:135
 - index-based, 4:48, 98–110
 - indirect, 5:34–35, 46–47
 - liability-driven, 4:11
 - locked up, 3:43
 - long-term, 2:59
 - offshore, 2:185
 - operating, 2:476–477
 - restricting, 1:36
 - traditional vs. alternative, 5:7–13
 - zero risk, 5:190
- investment accounts. *see* account(s)
- investment actions. *see also* Investment Analysis, Recommendations, and Actions [Standard of Professional Conduct V]
 - in AMC, 1:242, 245–248
 - fair dealing in, 1:83–84
 - firm policies on, 1:77
 - impact of, 1:12–13
 - unethical, 1:29
- investment analysis
 - due diligence in, 1:33
 - independent, 1:69
- risks and limitations of, 1:139–140, 145–146
- Investment Analysis, Recommendations, and Actions [Standard of Professional Conduct V], 1:126–148
- Communication with Clients and Prospective Clients [Standard V(B)]
 - application of the standard, 1:141–146
 - case study, 1:212
 - compliance procedures, 1:140–141
 - eleventh edition revision, 1:8
 - guidance, 1:138–140
 - text of, 1:18, 137–138
- Diligence and Reasonable Basis [Standard V(A)], 1:126–137
 - application of the standard, 1:130–137
 - case study, 1:210–212
 - compliance procedures, 1:130
 - guidance, 1:126–129
 - text of, 1:18, 126
- Record Retention [Standard V(C)], 1:146–148
 - application of the standard, 1:148
 - compliance procedures, 1:147
 - guidance, 1:146–147
 - text of, 1:18, 146
- investment assets, 2:388
- investment banking, 1:32–33; 2:519–520
- investment committees, 2:137; 3:181, 352
- Investment Company Act (1940), 2:496; 5:65
- investment currencies, 3:404
- investment environment
 - for capital market expectations, 3:7–8, 11
 - changing, and strategic asset allocation, 3:351–352
- investment governance, 3:180–188
 - allocation of rights and responsibilities, 3:182–184
 - articulating investment objectives, 3:181–182
 - governance audit, 3:185–186
 - governance structures, 3:180–181
 - investment policy statement, 3:184
 - rebalancing policy, 3:185
 - reporting framework, 3:185
- investment grade (IG) bonds
 - defined, 4:192
 - expected return and taxation of, 3:343–344
 - strategic asset location for, 3:346–348
- investment-grade corporate bond portfolios
 - credit mitigation risk, 4:194
 - credit risk, 4:193–194
 - interest rate risk, 4:195–198
 - liquidity and trading, 4:198–199
 - spread risk, 4:194–195
- investment income, net, 2:487–488
- investment industry, ethics in, 1:11–15
- investment instruments, asset allocation and, 2:196
- investment intermediaries, 2:526–527

- investment management
 - challenges of large and small assets in, 3:323–324
 - governance vs., 3:180–181
 - importance of asset allocation, 3:178–180
 - knowledge required for, 3:183–184
 - and market indexes, 3:472
- Investment Management Consultants Association (IMCA), 6:210
- investment management fees, 6:223, 257, 289
- investment managers, on performance evaluation, 6:122
- Investment Managers strategy, 6:153–154
- Investment Manager Subcommittee, 6:212
- investment multiple, 6:265, 290
- investment objectives
 - in asset allocation, 3:181–182, 194
 - decision making based on, 3:182
 - of defined benefit pension fund, 3:181
 - of endowment fund, 3:181
 - establishing, 1:77
 - of individual investors, 3:181
 - in investment policy statements, 1:93, 148; 3:184
 - and risk tolerance, 3:182
- investment opportunity set, availability bias and, 2:68
- Investment Performance Council (IPC), 6:211, 276
- investment personnel. *see* personnel
- investment policy, performance evaluation in, 6:121
- investment policy statements (IPSS)
 - and AMC, 1:247–248
 - and asset allocation, 2:189–191; 3:184
 - behaviorally-modified asset allocation for, 2:81–82
 - in compliance procedures, 1:93
 - in currency management programs, 3:396–398
 - currency management strategies based on, 3:387–388
 - developing, 1:91
 - for individual investors, 2:171–187
 - constraints, 2:176–187
 - return objectives, 2:172–174
 - risk objectives, 2:174–175
 - for institutional investors
 - banks, 2:524–526
 - defined-contribution pension plans, 2:478–482
 - endowments, 2:496–499
 - foundations, 2:488–489
 - life insurance companies, 2:508–511
 - non-life insurance companies, 2:518–519
 - investment restrictions in, 6:236–237
 - portfolio return calculation provisions in, 6:229–230
 - record retention of objectives/recommendations in, 1:148
 - requirements and limitations of, 1:95–96
 - reviews of, 1:96
 - updating, 1:92, 95
- investment practice, impact of misrepresentation on, 1:44
- investment process. *see also* behavioral factors in investment processes
 - asset allocation in, 3:179–180
 - changes to, 1:142–144
 - disclosure of, 1:256
 - informing clients of, 1:138–139
- Investment Processes and Actions (AMC Part B), 1:242, 245–248
- investment products, applicable laws for, 1:23–25
- Investment Property Databank (IPD), 5:16
- investment real estate
 - about, 2:366
 - characteristics of, 5:20–21
 - client objectives with, 2:328
 - concentrated positions in, 2:324, 366–369
 - monetization strategies, 2:367–369
 - donor-advised funds, 2:367–368
 - mortgage financing, 2:367
 - sale and leaseback, 2:368–369
- investment risk
 - with concentrated single-asset positions, 2:324–327
 - and reinvestment risk, 2:502
 - and taxes, 2:250–251
- investment services, of brokers, 6:18
- investment skill, 6:167
- investment strategies
 - in composite construction, 6:238–241
 - managing to, 1:247
- investment style
 - value
 - and fundamental anomalies, 2:33–34
 - long-only investing with, 5:98
- investment style(s), 4:276–296
 - advantages of, 4:282
 - based on market capitalization, 4:281–282
 - blend, 4:280–281
 - consistent growth, 4:280
 - contrarian, 4:279
 - core, 4:280–281
 - earnings momentum, 4:280
 - growth, 4:277–278, 280
 - consistent, 4:280
 - defined, 3:469n.9
 - indexes with, 4:291–293
 - and Microsoft, 4:278
 - sell disciplines, 4:302
 - value vs., 4:277–278
 - growth-at-a-reasonable price, 4:281
 - high-yield, 4:279–280; 5:98
 - in holdings-based style analysis, 4:282–283, 288–291
 - identifying, 4:282–291
 - indexes based on, 4:291–294
 - low P/E, 4:279
 - managing to, 1:247
 - market-oriented, 4:276, 280–281
 - and portfolio characteristics, 4:289–290
 - in returns-based style analysis, 4:283–288, 291
 - returns due to, 6:134–135
 - and style boxes, 4:294–295
 - and style drift, 4:295–296
 - style rotator, 4:281
 - value, 4:277–280
 - defined, 3:469; 4:276
 - growth vs., 4:277–278
 - Microsoft and, 4:278
 - sell disciplines, 4:302
- investment style indexes, 6:137
- investment system, disclosure of, 1:141, 143
- investment universes, 3:464
- investment vehicles, market indexes as basis for, 3:472–473
- investor constraints. *see* constraints of individual investors
- Investor/Consultant Subcommittee, 6:212
- investors. *see also* institutional investors; portfolio management; individual investors
 - active
 - in Barnewall two-way model, 2:109
 - in behavioral alpha process, 2:111–112
 - successful, 6:83–84
 - trading behavior of, 2:254
 - angel, 5:31–32
 - asset allocation constraints of, 3:323–324
 - behavioral types, 2:108–117
 - Barnewall two-way model, 2:108–109
 - BB&K model, 2:109–110
 - limitations of classification, 2:116–117
 - psychographic modeling, 2:111–116
 - benchmark of, 4:311
 - changes in circumstances/constraints of, 6:67–79
 - laws and regulations, 6:70–71
 - liquidity requirements, 6:68
 - tax circumstances, 6:70
 - time horizons, 6:69–70
 - unique circumstances, 6:71–79
 - wealth, 6:68
 - with concentrated stock positions, 6:77–79
 - with emotional biases, 2:88–96
 - exempt, 2:254
 - goals of, 5:6
 - high-net-worth, 2:272–273
 - identity of, 5:44
 - large-cap equity, 4:281–282
 - liquidity constraints of
 - and asset location, 2:253
 - changing liquidity requirements, 6:68, 72, 75–76
 - and gift tax, 2:294
 - and life insurance, 2:303
 - micro-cap equity, 4:281
 - mid-cap equity, 4:281, 282
 - passive, 2:108–109
 - in behavioral alpha process, 2:111–112
 - trading behavior of, 2:254
 - psychographic modeling of, 2:111–116
 - self-made, 2:162
 - small-stock, 4:281
 - vulture, 5:99
- IOs. *see* interest-only strips

- IPC. *see* Investment Performance Council
- IPD. *see* Investment Property Databank
- IPD France Annual Property Index, 5:16
- IPO puzzle, 2:139
- IPOs. *see* initial public offerings
- IPSS. *see* investment policy statements
- IR. *see* information ratio
- IRAs. *see* Individual Retirement Accounts
- Ireland
- equity real rates of return, 4:164, 256
 - equity risk premium, 3:39
 - Eurozone membership, 3:9n.
 - expected returns for equities/bonds, 3:25
 - in Hague Conference, 2:304
 - real estate, 5:20
 - tax regime, 2:231, 347
- IRR. *see* internal rate of return
- irrational behavior, predicting, 2:117
- irrevocable trusts, 2:183–184, 300, 301
- IRS. *see* Internal Revenue Service
- ISDA. *see* International Swaps and Derivatives Association
- iShares Core S&P 500 ETF, 3:465
- Islamic law (Sharia law), 2:274; 3:338
- ISM. *see* Institute of Supply Management
- isolation effect, 2:26
- I-spread, 4:202
- Israel
- asset allocation restrictions, 3:335
 - exit taxes, 2:306–307
 - in Hague Conference, 2:304
 - tax rates, 2:179
 - tax regime, 2:231, 347
- issuance date, 4:212
- issuer-paid research, 1:34–35, 48
- issuer relationship pressure, 1:37–38
- issue size, 4:213
- Italy
- CLI, 3:82
 - equity real rates of return, 4:256
 - equity risk premium, 3:39
 - Eurozone membership, 3:9n.
 - expected returns for equities/bonds, 3:25
 - gift tax, 2:293
 - in Hague Conference, 2:304
 - interest income taxation, 2:227
 - real GDP growth rate, 3:32; 4:216
 - tax-advantaged savings accounts, 2:246
 - tax rates, 2:179
 - tax regime, 2:231, 347
 - trade partners, 3:83
- iTraxx, 4:230
- J**
- January effect, 2:35, 139
- Japan
- asset price bubble of 1980s, 2:142
 - banking, 2:519–520
 - China stock market volatility vs., 3:136
 - CLI, 3:82
 - commodity market, 5:46
 - Conference Board index, 3:84
 - corporate form of publicly-traded companies, 5:35
 - defined-benefit pension plans, 2:464
 - economic growth, 3:69
 - economic state of, 2:63
 - emerging market debt, 3:92
 - equity indexes' composition/ characteristics, 4:268
 - equity real rates of return, 4:257
 - equity risk premium, 3:39
 - expected returns for equities/bonds, 3:25
 - foreign cash receipts, 5:375–376
 - foreign currency payments, 5:253
 - gift tax, 2:293, 296
 - in Hague Conference, 2:304
 - insurance companies, 2:507
 - interest income taxation, 2:233
 - interest rate swaptions, 5:394–397
 - investment real estate, 2:324
 - and justified P/E estimates, 3:133
 - life insurance industry, 2:503
 - negative interest rates, 3:65
 - pension funds, 3:335; 4:255
 - population growth, 3:131
 - real GDP growth rate, 3:32; 4:216
 - REITs, 5:14
 - risk governance, 5:138
 - savings–investment imbalances forecasting approach, 3:102
 - taxable gifts, 2:292, 294
 - tax on stock purchases, 2:323
 - tax rates, 2:179
 - tax regime, 2:231, 347
 - TFP growth, 3:71
 - trade partners, 3:83, 84
- Japanese yen
- carry trade, 4:135
 - currency code, 3:375
 - currency exposure for, 3:391n.11; 4:223
 - in currency pairs, 3:376, 377, 378n.7, 411
 - in currency swaps, 5:375–376
 - as haven currency, 3:439
- Jensen's alpha, 6:168
- J factor risk, 5:100
- Johnson & Johnson, 4:94
- joint life annuities, 2:423, 428–429
- joint ownership with right to survivorship, 2:274
- Jones, Alfred Winslow, 6:144
- Jordan, 2:179, 304
- JP Morgan, 3:27, 469, 471
- JPMorgan Chase, 5:153
- JP Morgan Emerging Markets Bond Index (EMBI), 3:469, 471
- JP Morgan Government Bond Index–Emerging Markets Global (GBI-EM Global), 3:469; 4:7, 8
- JPY/EUR. *see* Euro-yen market
- JPY/GBP. *see* Sterling-yen market
- JPY/USD. *see* Dollar-yen market
- judgment, analyst, 3:50
- junior tranche, 4:240
- junk bonds, 2:64
- jurisdiction
- of individual investors, 2:185
 - residence, 2:305
 - source, 2:305
 - tax, 2:305
- justified P/E estimates, 3:126–140
- for China, 3:128–139
 - and economic experience, 3:128–129
 - and future economic growth, 3:130–131
 - H-model for estimating P/E, 3:132–139
 - for developed economies, 3:139–140
 - and neoclassical approach to growth accounting, 3:126–127, 129–130
- K**
- kabushiki kaisha* (K.K.), 5:35
- Kahneman, Daniel, 2:70, 166
- Kazakhstan, 2:231, 232n.4, 347
- Kenya, 2:231, 347
- key employees, sale of private business equity to, 2:359–360
- Keynes, John Maynard, 2:80
- key rate durations (KRDs)
- and bullet/barbell portfolios, 4:142
 - defined, 4:130
 - as indexing risk factor, 4:95
 - and interest rate exposure, 4:221
- Knight, Frank, 2:21
- knock-in options, 3:424–425
- knock-out options, 2:348–349; 3:424–425
- knowingly (term), 1:43
- knowledge
- for investment management, 3:183–184
 - of the law, 1:29
- Knowledge of the Law [Standard I(A)], 1:21–29
- application of the standard, 1:27–29
 - case study, 1:203–204
 - compliance procedures, 1:26–27
 - CFA members and candidates, 1:26
 - dissociation, 1:26
 - distribution area laws, 1:26
 - firms, 1:26–27
 - legal counsel, 1:26
 - guidance, 1:21–25
 - Code/Standards and applicable law, 1:22–23
 - investment products and applicable law, 1:23–25
 - violations by others, participation or association with, 1:23
 - text of, 1:16, 21
- known errors, noncorrection of, 1:48
- Korea. *see* South Korea
- Korean won, 3:375, 440
- KRDs. *see* key rate durations
- krona, Swedish, 3:375
- kurtosis, 5:12n.9, 82
- Kuwait, 3:76
- L**
- labor force, economic growth and, 3:71
- lack of marketability discount, 2:339
- laddered portfolio, 4:107–110, 169
- construction, 4:9, 107–108
 - extreme barbell portfolio vs., 4:172–173
 - less extreme barbell portfolio vs., 4:174–175
- lagging economic indicators, 3:81

- large-cap equities, 2:144; 4:262
 - large-cap equity investors, 4:281–282
 - large cash flows, 6:222, 243n.20, 290
 - late retirement phase (financial stages of life), 2:394
 - later-stage financing, 5:31
 - late upswing phase (business cycle), 3:53, 54
 - Latin America. *see also specific countries*
 - credit, 4:235
 - debt crisis, 3:75
 - wealth from private businesses, 2:322
 - Latvia, 2:231, 304, 347
 - law(s). *see also applicable law*
 - Anglo-Saxon law, 2:158
 - civil law systems, 2:274, 300, 302
 - common law systems, 2:274, 300
 - distribution area, 1:26
 - Fundamental Law of Active Management, 4:304
 - Islamic (Sharia), 2:274; 3:338
 - knowledge of, 1:29 (*see also* Knowledge of the Law [Standard I(A)])
 - more strict law, 1:22
 - portfolio monitoring and changes in, 6:70–71
 - regulations and governing, 1:203–204
 - religious tenets as basis for, 1:28–29
 - Roman law, 2:274
 - of small numbers, 2:57
 - LawInContext, 2:274
 - LDI. *see* liability-driven investing; liability-driven investments
 - leadership, 1:202; 3:79
 - leading economic indicator (LEI), 3:81–82
 - leaseback, 2:368–369
 - leaving an employer, 1:106–107, 115
 - legacy goals, 2:416
 - legal constraints of individual investors, 2:182–185
 - family foundation, 2:184–185
 - jurisdiction for taxation, 2:185
 - personal trust, 2:183–184
 - in sample IPSs, 2:187
 - legal counsel, 1:26
 - legal factors for institutional investors
 - banks, 2:523
 - defined-benefit plans, 2:472–473
 - endowments, 2:495
 - foundations, 2:488
 - legal liabilities, 3:273
 - life insurance companies, 2:506–508
 - non-life insurance companies, 2:517
 - legal issues, with estate planning, 2:274–276
 - legal review, of private equity, 5:44–45
 - legal risk, 4:236; 5:147–148
 - legs, swap, 3:380
 - Lehman AA Industrials Index, 6:163
 - Lehman Aggregate Bond Index, 6:136, 137
 - Lehman Brothers Government Bond Index (LGB), 5:388
 - Lehman Brothers Government/Credit Bond Index, 6:137, 152
 - Lehman Brothers US Government Index, 6:162, 163
 - Lehman Long Treasury Bond (LLTB) index, 5:385
 - Lehman Mortgage Index, 6:137
 - LEI. *see* Index of Leading Economic Indicators; leading economic indicator
 - Leibowitz-Bova approach, 5:13
 - lending
 - margin-lending rule, 2:330
 - puts with, 5:318–323
 - of securities, 4:30–31, 270
 - less strict (LS) countries, 1:24–25
 - level of service, disclosure of, 1:86
 - leverage
 - and duration management, 4:138–139
 - with fixed-income portfolio, 4:27–31
 - futures contracts, 4:28–29
 - methods, 4:28–31
 - repurchase agreements, 4:29–30
 - risks, 4:31
 - securities lending, 4:30–31
 - structured financial instruments, 4:29
 - swap agreements, 4:29
 - using, 4:27–28
 - in long–short investing, 4:298
 - VC vs. buy-out fund, 5:40
 - leverage-adjusted duration gap, 2:521
 - leveraged floating-rate notes (leveraged floaters), 5:366–368
 - leveraged recapitalization, 2:359
 - leverage limits, fund management company, 5:185
 - levered risk parity portfolios, 3:310
 - LGB. *see* Lehman Brothers Government Bond Index
 - liabilities. *see also* asset–liability management; pension liabilities
 - asset-driven, 4:49
 - characterization of, 3:273–276
 - classification in liability-driven investing, 4:50
 - contingent, 3:273
 - on economic balance sheets, 2:396
 - extended portfolio, 3:188
 - for individual vs. institutional investors, 3:193
 - for institutional investors, 3:188, 193, 275
 - legal, 3:273
 - multiple liability immunization, 4:64–78
 - quasi-liabilities, 3:273
 - single liability immunization, 4:52–63
 - in time horizon, 3:331–333
 - on traditional balance sheets, 2:395
 - Type I, 4:50
 - Type II, 4:50, 78–79
 - Type III, 4:50, 79
 - Type IV, 4:50, 79, 80
 - liability-based benchmarks, 3:470–471
 - liability-based mandates, 4:11–15
 - cash flow matching, 4:12–13
 - contingent immunization, 4:14
 - duration matching, 4:13–14
 - horizon matching, 4:14–15
 - liability-driven investing (LDI), 3:192, 193; 4:47–92
 - about, 4:47–52
 - for defined benefit pension plan, 4:78–88
 - interest rate immunization, 4:52–78
 - cash flow matching, 4:64–67
 - contingent immunization, 4:14, 77–78
 - derivatives overlay, 4:73–76
 - duration matching, 4:67–73
 - for multiple liabilities, 4:64–78
 - for single liability, 4:52–63
 - matching a portfolio to an index, 4:92–98
 - risks in, 4:88–92
 - liability-driven investments (LDI), 4:11. *see also* liability-based mandates
 - liability glide path, 3:211
 - liability insurance, 2:421–422
 - liability-relative allocation, 3:208–211, 273–287
 - approaches to, 3:276–289
 - comparison of, 3:286–287
 - hedging/return-seeking portfolio approach, 3:282–285
 - integrated asset–liability approach, 3:285–286
 - surplus optimization, 3:277–282
 - characterization of liabilities in, 3:273–276
 - defined, 3:192
 - factor modeling in, 3:289
 - goals-based allocation vs., 3:193
 - investment objectives of, 3:194
 - rebalancing in, 3:226
 - risk concepts relevant to, 3:195
 - robustness of asset allocation alternatives, 3:287–288
- liability risk, 2:403
- Libor. *see* London Interbank Offered Rate
- life annuities, 2:428
- life annuities with refund, 2:428
- life balance sheets, 2:279–280
- life-cycle balanced funds, 3:188–190
- life-cycle finance, 2:382
- life-cycle models, traditional vs. behavioral, 2:37–38
- life expectancy, core capital based on, 2:280–281
- life insurance, 2:405–416. *see also specific types, e.g.: whole life insurance*
 - in case study, 2:434–438
 - elements of, 2:407–409
 - as estate planning tool, 2:302–303
 - investment policy statements for, 2:508–511
 - participating vs. non-participating policies, 2:406–407
 - portfolio management for, 2:499–511
 - pricing of, 2:409–415
 - appropriateness of, 2:416
 - calculation of net and gross premiums, 2:411–412
 - cash values and policy reserves, 2:412–413
 - consumer comparisons of life insurance costs, 2:413–415
 - mortality expectations, 2:409–410
 - riders on, 2:407
 - types of, 2:406–407
 - uses of, 2:406

- life insurance companies
 - investment policy statements for, 2:508–511
 - portfolio management for, 2:499–511
 - legal and regulatory factors, 2:506–508
 - liquidity requirements, 2:505–506
 - return objectives, 2:503–505
 - risk objectives, 2:501–503
 - tax concerns, 2:506
 - time horizon, 2:506
 - unique circumstances, 2:508
- life insurance underwriting, 2:409
- life-only annuities, 2:425
- lifetime gratuitous transfers, 2:277
- life with period certain annuities, 2:425, 428
- LIFO tax lot accounting. *see* lowest in, first-out tax lot accounting
- Light Capital Gain Tax Regime, 2:229–231, 347
- limited arbitrage, 2:35–36
- limited liability company form (private equity funds), 5:34–35
- limited partners, 6:266, 290
- limited partnerships, 6:266, 290
- limit order book, 6:10, 11
- limit-order markets, electronic, 6:16
- limit orders, 6:7–8
- limits
 - for fund management companies, 5:185
 - on private placements, 1:159
 - setting, 5:191–193
- Lincoln National Corporation, 2:504, 516
- linear strategies, 6:97
- linked internal rate of return, 6:131–132
- linking of returns, geometrical, 6:224–225
- links, GIPS definition of, 6:290
- Lipper, 5:60
- Lipper/TASS, 3:469
- liquid alternatives, 5:65, 67
- liquidation
 - final liquidation date, 6:265, 267, 289
 - forced, 4:31
- liquidation value, 2:326, 354
- liquid credit securities, 4:230
- liquidity. *see also* illiquidity
 - as asset allocation constraint, 3:327–330
 - for banks, 2:521
 - in bond market, 4:19–23
 - alternatives to direct investment in bonds, 4:22
 - effects of, 4:21–22
 - portfolio construction, 4:21–22
 - pricing, 4:21
 - sub-sectors, 4:20–21
 - and concentrated positions, 2:327, 329, 331
 - in corporate bond portfolios, 4:198–199
 - in country risk analysis, 3:79
 - defined, 4:198; 6:9
 - of emerging market currencies, 3:439
 - in financial crises, 3:329–330
 - and full replication, 4:272
 - of individual investors, 2:176–178
 - in international credit portfolios, 4:236
 - with laddered bond portfolios, 4:108
 - of markets, 6:19–20
 - natural, 6:11–12
 - of private equity, 5:42–43
 - and rebalancing, 3:226
 - in sample IPSs, 2:186–187, 190
 - and tax-sheltered savings accounts, 2:181
 - trade size relative to, 6:30
 - and trading costs, 6:30
 - in trading focus, 6:38–40
- liquidity-at-any-cost trading focus, 6:38, 40
- liquidity constraints of investors
 - and asset location, 2:253
 - and gift tax, 2:294
 - and life insurance, 2:303
- liquidity limits, fund management company, 5:185
- liquidity-motivated traders, 6:34, 35, 36
- liquidity requirements
 - for institutional investors
 - banks, 2:523
 - defined-benefit plans, 2:470–471
 - endowments, 2:494
 - foundations, 2:487
 - life insurance companies, 2:505–506
 - non-life insurance companies, 2:515
 - monitoring changes in, 6:68, 72, 75–76
- liquidity risk
 - in credit portfolios, 4:226–231
 - management of, 4:230–231
 - secondary market measures, 4:226–229
 - structural industry changes, 4:229–230
 - identifying, 5:143–144
 - market, 5:100
 - measuring, 5:180
- Lithuania, 2:304
- Litterman, Robert, 3:256
- Livingston, Joseph, 3:48
- Livingston Survey, 3:48
- LLTB index. *see* Lehman Long Treasury Bond index
- loading, in life insurance pricing, 2:411
- loans
 - and currency conversions, 5:370–375
 - and exchange rate risk, 5:370–375
 - fixed-rate, 5:359–363
 - floating-rate
 - with caps, 5:323–327
 - with collars, 5:329–333
 - converting fixed- and, 5:359–363
 - with floors, 5:327–329
 - with FRAs, 5:218–219
 - inverse, 5:368–370
 - leveraged floating-rate notes, 5:366–368
 - with FRAs, 5:215–219
 - floating-rate loans, 5:218–219
 - single-payment loans, 5:215–218
 - mortgage, 2:388
 - non-recourse, 2:367
 - protected with interest rate calls, 5:315–318
 - single-payment, 5:215–218
- local requirements, for record retention, 1:147
- locked up investments, 3:43
- lock-up period, 5:59, 75
- Loews Cineplex Entertainment Corporation, 5:99
- logical participation strategies, 6:42–47
- London, England, 2:310–311
- London Business School, 2:140
- London Interbank Offered Rate (Libor)
 - credit risk exposures, 5:179
 - credit risk of swaps, 5:177
 - currency swaps, 5:371n.14
 - equity swaps, 5:385
 - and equity total return swaps, 4:275
 - interest rate compounding, 5:257
 - interest rate swaps, 4:82–84, 89, 139; 5:360–361, 364, 366–370
- inverse floaters, 4:29
- loan interest rate
 - calls, 5:313, 314, 316, 317
 - caps, 5:323–326
 - collars, 5:330–333
 - floors, 5:327–329
 - forward and futures strategies, 5:215–218, 259
 - options, 5:312, 313
 - puts, 5:318–322
 - as underlying rate, 5:259, 312, 313
- and range accrual notes, 4:184
- swaptions, 5:390, 393–402
- total return swaps, 4:102
- and US dollar swap curve, 4:202
- London Stock Exchange (LSE)
 - capitalization weighting of, 3:474
 - characteristics of, 4:268
 - market orders at, 6:7
 - price volatility of, 6:55, 61
 - and SEAQ, 6:12
- Long Bund contract, 4:76
- long data series, capital market
 - expectations from, 3:17
- longevity insurance, 2:440
- longevity risk
 - defined, 6:77
 - and discount rates, 3:215
 - and liability-driven investing, 4:80
 - in risk management, 2:402
- long-only constraint, 4:299–300
- long-only value investing, 5:98
- long positions
 - for call options, 5:279–282
 - for put options, 5:282–286
 - in risk reversals, 3:422
 - in seagull spreads, 3:423
- long-short investing, 4:297–302
- butterflies, 4:160–162
- equitizing a market-neutral long-short portfolio, 4:299
- long-only constraint, 4:299–300
- and market structure, 4:301–302
- price inefficiency on short side of market, 4:298–299
- short extension strategies, 4:300–301
- long-short portfolios, market-neutral, 4:299
- long tail, of non-life insurance, 2:511
- long-term capital gains tax rate,
 - accumulation using, 2:258–260

- Long-Term Capital Management (LTCM)
 and adaptive markets hypothesis, 2:41
 liquidity crisis at, 3:329–330
 liquidity risk for, 5:180
 and Russian financial crisis, 3:75
 yield curve for, 4:124–125
- long-term health care, 2:404
- long-term health care insurance, 2:439
- long-term inputs, 3:262
- long-term investments, identifying, 2:59
- long-term real risk-free interest rate, 3:37
- loss(es). *see also* tax-loss harvesting
 capital
 roll-down return and, 4:24
 tax issues, 4:33, 34
 tax loss harvesting for, 2:255–258
 yield curve and, 4:180
 credit, 4:24, 205
 currency, 4:24
 direct vs. indirect, 2:402–403
 gain-to-loss ratio, 5:82
 maximum (*see* maximum loss)
 realized, 6:25
 unrealized, 6:23, 25
- loss aversion
 in behavioral finance, 2:166
 myopic, 2:72–73
 and prospect theory, 2:26
- loss-aversion bias, 2:70–73, 94–95
 and asset allocation, 3:362
 consequences of, 2:72
 detection and methods of overcoming, 2:73
 diagnostic questions, 2:87, 94
 effect of, 2:71
 myopic loss aversion, 2:72–73
 and prospect theory, 2:166
- loss control, 2:432
- loss given default, 4:193
- loss harvesting. *see* tax-loss harvesting
- loss prevention, 2:432
- loss reduction, 2:432
- loss severity, 4:193
- lot allocations, minimum, 1:88–89
- low-cost-whatever-the-liquidity trading
 focus, 6:39, 40
- lowest in, first-out (LIFO) tax lot
 accounting, 2:258
- low P/E investment style, 4:279
- low-return environments, 5:9
- low-wealth-level investor with cognitive
 biases (case study), 2:92–96
 behaviorally-modified portfolio
 decision, 2:96
 diagnostic tests, 2:93–94
 effect of biases, 2:95
 moderate or adapt recommendation,
 2:95
- Loyalty, Prudence, and Care [Standard
 III(A)], 1:73–81; 6:29
 application of the standard, 1:78–81
 case study, 1:205, 207
 compliance procedures, 1:77–81
 client approval, 1:77
 firm policies, 1:77–78
 regular account information, 1:77
 guidance, 1:73–77
 client's portfolio, developing, 1:75–76
 identifying the client, 1:75
 proxy voting policies, 1:76–77
 soft commission policies, 1:76
 understanding application of
 standard, 1:74–75
 text of, 1:17, 73
 understanding application of standard,
 1:74–75
 loyalty effects, overinvestment in
 company stock and, 2:123
 Loyalty [Standard IV(A)], 1:105–115
 application of the standard, 1:109–115
 case study, 1:205
 compliance procedures, 1:109
 competition policy, 1:109
 employee classification, 1:109
 incident-reporting procedures, 1:109
 termination policy, 1:109
 guidance, 1:105–109
 employer responsibilities, 1:106
 independent practice, 1:106
 leaving employers, 1:106–107
 nature of employment, 1:108–109
 social media, 1:108
 whistleblowing, 1:108
 text of, 1:17, 105
 loyalty to clients, 1:81
 Loyalty to Clients (AMC Part A), 1:242,
 244–245
 LPX, 5:37
 LS countries. *see* less strict countries
 LSE. *see* London Stock Exchange
 LTCM. *see* Long Term Capital
 Management
 Luxembourg
 in Eurozone, 3:9n.
 and EUSD, 2:311
 in Hague Conference, 2:304
 offshore banking centers, 2:310–311
 tax regime, 2:231, 347
- M**
 M^2 measure, 6:168–170
 Macaulay duration
 defined, 4:55, 130; 5:220n.7
 and duration matching, 4:67, 68
 of single fixed-income bond, 4:53–56,
 59, 61
 for zero-coupon bonds, 4:131
 McDonald's, 4:263–266
 Macedonia, former Yugoslav Republic
 of, 2:304
 Mackay, Charles, 2:141
 McKinsey Global Institute, 3:352
 macro attribution
 conducting, 6:150–154
 Allocation Effects strategy, 6:154
 Asset Category strategy, 6:151–152
 Benchmarks strategy, 6:152–153
 Investment Managers strategy,
 6:153–154
 Net Contributions strategy, 6:151
 Risk-Free Asset strategy, 6:151
 defined, 6:146
 inputs, 6:148–150
 overview, 6:148
 macro-consistency, 3:477
 macroeconomic factors
 forecasting based on, 3:140
 international linkages in, 3:75
 in top-down approach to credit
 strategy, 4:215
 and top-down approach to portfolio
 construction, 4:224
 macro expectations, 3:6
 macro hedge fund strategies, 5:58,
 67, 74
 macro hedges, 3:430
 macro securities, 2:178
 maintenance phase of life, 2:164
 maintenance rules, market index, 3:475
 making the market, 1:63; 6:12
 Malaysia, 2:231, 304, 347
 Malkiel, Burton, 4:259
 Malta, 2:304; 3:9n.
 managed care facilities, 2:177
 managed futures, 5:85–93
 benchmarks, 5:86–87
 defined, 5:7, 85
 historical performance, 5:87–89
 interpretation issues, 5:89
 investment characteristics, 5:90
 market for, 5:85–86
 performance persistence, 5:92
 in portfolios, 5:90–92
 and skewness of hedge funds, 5:74
 strategic asset allocation, 5:92–93
 types of investments, 5:85–86
 managed futures funds, 3:411
 managed futures market, 5:85–86
 management
 buyout of private business by,
 2:359–360
 commitment of, 5:44
 commitment to GIPS by, 6:215
 experience of, 5:43–44
 influence on analysts' forecasts of,
 2:131–133
 management effect, 6:165
 management fees, 1:256
 management reporting, in asset
 allocation, 3:185
 manager-based hedge fund indexes,
 5:61–62
 manager continuation policies (MCP),
 6:178–182
 as filter, 6:181–182
 phases, 6:179–180
 purposes of, 6:179
 manager peer groups, 3:468–469
 manager review, 6:179–181
 managers. *see also* portfolio managers
 active, 5:10–11; 6:82–84
 efficient frontiers of, 4:306, 307
 enhanced-index, 3:473
 external, travel expenses from, 1:39–40
 fund
 benchmarks for, 3:466, 467, 472
 relationships with, 1:32, 42
 risk budgeting by, 5:184–185
 growth, 3:467
 investment, 6:122
 money, 3:89–90
 monitoring of, 6:179–180
 submanagers, 1:96, 132–133
 value, 3:467

- manager selection process
 - criteria for, 6:176
 - diligence in, 1:136
 - influencing, 1:34, 41–42
 - manager universes, 3:468–469; 6:136, 140–141
 - mandates
 - employer, 2:330
 - fixed-income, 4:11–19
 - liability-based, 4:11–15
 - total return, 4:15–19
 - following, 1:95
 - managing to, 1:93, 247
 - notification of change in, 1:142
 - manipulation, market. *see* Market Manipulation [Standard II(B)]
 - MAR. *see* minimum acceptable return margin
 - for futures, 3:410
 - net interest, 2:521
 - risk- and rule-based, 2:330
 - marginal contribution to portfolio risk, 3:267
 - marginal contribution to total risk (MCTR), 3:267–268
 - marginal tax rate, 2:227
 - margin borrowing, 3:357
 - margin-lending rule, 2:330
 - market(s)
 - capital (*see also* Integrity of Capital Markets [Standard of Professional Conduct II])
 - anomalies in, 3:23
 - and benefit of ethics to society, 1:12
 - business cycle effects on, 3:53, 54
 - forecasts of, 3:43–45
 - sustainability of, 1:12–13
 - changes in, 6:79–82
 - commodity, 5:46–47
 - currency hedging and conditions in, 3:390–391
 - depth of, 6:19
 - distressed securities, 5:94–95
 - electronic limit-order, 6:16
 - emerging, 3:438–441
 - carry trade returns, 4:135
 - common shares in, 3:97
 - country risk analysis, 3:77–80
 - credit universe in, 4:235
 - developed vs. emerging economies, 3:77
 - in economic analysis, 3:77–80
 - in hedge fund strategies, 5:58
 - liquidity problems, 4:236
 - non-deliverable forwards, 3:440–441
 - trading costs and extreme market events, 3:438–440
 - equity
 - asset-based models, 3:157–161
 - constant growth model, 3:31–33
 - discounted cash flow models, 3:31–35
 - earnings-based models, 3:147–157
 - forecasts of, 3:140–146
 - relative value models, 3:147–162
 - in evaluation of private equity investments, 5:43
 - fixed-income, 3:35
 - foreign exchange
 - exchange-traded futures in, 3:410–411
 - forward, 3:377–380
 - spot, 3:375–377
 - swap, 3:380–381
 - global investable, 3:40
 - hedge fund, 5:56–60
 - hybrid, 6:17
 - individual local, 3:42
 - information from brokers about, 6:18
 - integrated, 3:42–43
 - making, 1:63; 6:12
 - managed futures, 5:85–86
 - marking to, 3:378; 5:186, 187
 - money, 2:526–527
 - open, 3:89–90
 - over-the-counter, 4:199
 - perfect, 3:41
 - private equity, 5:29–37
 - demand for venture capital, 5:30–31
 - exit from investment, 5:31
 - size of, 5:36–37
 - size of market, 5:36–37
 - supply of venture capital, 5:31–34
 - types of private equity investments, 5:34–35
 - quality of, 6:19–21
 - real estate, 5:13–15
 - secondary
 - bid–ask spreads in, 4:228–229
 - evaluating liquidity in, 4:226–229
 - spread sensitivity to fund outflows, 4:227–228
 - trading volume in, 4:226–227
 - segmented, 3:42–43
 - structure of, 4:301–302
 - types of, 6:9–17
 - brokered markets, 6:17
 - hybrid markets, 6:17
 - order-driven markets, 6:15–16
 - quote-driven markets, 6:10–15
 - zero-sum derivatives, 5:90
- market-adjusted implementation shortfall, 6:25–26
- market anomalies
 - behavioral factors in, 2:138–139
 - calendar anomalies, 2:35
 - defined, 2:138–139
 - and EMH, 2:32–36
 - fundamental anomalies, 2:33–34
 - and model uncertainty, 3:23
 - technical anomalies, 2:34
- market ask, 6:10–11
- market behavior, 2:28–41
 - behavioral factors in, 2:138–145
 - bubbles and crashes, 2:141–144
 - market anomalies, 2:138–139
 - momentum, 2:140–141
 - value and growth stocks, 2:144–145
- in behavioral finance, 2:37–38, 41
- adaptive markets hypothesis, 2:41
- behavioral approach to asset pricing, 2:38–39
- behavioral approach to consumption and savings, 2:37–38
- and behavioral portfolio theory, 2:39–40
- in traditional finance, 2:28–36
- market bid, 6:8, 10
- market bid–ask spread, 6:11
- market bubbles, 2:141–144
- market capitalization, 3:255; 4:281–282
- market cap weighting, 3:473–474. *see also* capitalization-weighted indexes
- market crashes, 2:141–144
- market cycles, portfolio monitoring and, 6:79–80
- market EPS, forecasts of, 3:144, 146
- market fragmentation, 6:9
- market impact, 6:12, 22–23
- market indexes
 - about, 3:464
 - as benchmarks, 3:480
 - benchmarks vs., 3:465
 - broad, 3:469; 6:136–137
 - construction of, 3:473–477
 - approach, 3:473–475
 - tradeoffs in, 3:475–477
- index weighting schemes, 3:477–481
- capitalization-weighted indexes, 3:477–478
- equal-weighted indexes, 3:478
- fundamental-weighted indexes, 3:478–479
- with index used as benchmark, 3:479
- and market index as benchmarks, 3:480
- price-weighted indexes, 3:478
- Nikkei 225 as, 3:480–481
- uses of, 3:471–473
- market liquidity risk, 5:100
- Market Manipulation [Standard II(B)], 1:16, 68–73
 - application of the standard, 1:69–73
 - guidance, 1:68–69
 - information-based manipulation, 1:68
 - transaction-based manipulation, 1:69
 - text of, 1:16, 68
- market mechanism, 6:18
- market microstructure, 6:7–21
 - evaluating market quality, 6:19–21
 - order types, 6:7–9
 - roles of brokers and dealers, 6:18–19
 - types of markets, 6:9–17
 - brokered markets, 6:17
 - hybrid markets, 6:17
 - order-driven markets, 6:15–16
 - quote-driven (dealer) markets, 6:10–15
- market model, 6:137–138
- market momentum, 2:140–141
- market-neutral long–short portfolios, 4:299
- market-not-held order, 6:8
- market-on-close algorithms, 6:45
- market on close order, 6:9
- market on open order, 6:9
- market orders, 6:7
- market-oriented investment styles, 4:276, 280–281
- market quote, 6:11
- market risk. *see also* equity market risk
 - of distressed securities, 5:100
 - diversifying, 2:334–335
 - identifying, 5:142
 - managing, 5:182–185
 - measuring, 5:151–152

- market risk bucket, 2:334, 335; 3:214
- market sentiment, 3:357, 472
- market spread, 6:11
- market stress, 3:328
- market value, 4:214–215; 6:221, 290
- market value weighting, 3:473–474. *see also* capitalization-weighted indexes
- Market Volatility Index (MVI), 3:472
- marking to market, 3:378; 5:186, 187
- Markit, 3:471
- Markit Boxx Asian Local Bond Index (ALBI), 4:97–98
- Markit iBoxx USD Liquid Investment Grade Index, 3:471
- Markowitz, Harry, 2:39, 122
- Markowitz framework, 2:334
- Martellini, Lionel, 3:193
- Martini, Giulio, 3:390
- mass affluent, 5:9n.3
- matched swaps, 3:380–381, 412
- matching
 - cash flow, 4:12–14, 64–67
 - of company stock contributions, 2:123
 - duration, 4:13–14, 67–73
 - horizon, 4:14–15
- material information
 - in AMC, 1:248–249, 255
 - defined, 1:57
 - selective disclosure of, 1:64
- materiality, determining, 1:64, 67
- material nonpublic information
 - adopting compliance procedures for, 1:60
 - in AMC, 1:248–249
 - analyst recommendations as, 1:65–66
- Material Nonpublic Information [Standard II(A)]
 - application of the standard, 1:63–67
 - case study, 1:210
 - compliance procedures
 - achieving public dissemination, 1:60
 - adopting, 1:60
 - adopting disclosure procedures, 1:60–61
 - appropriate interdepartmental communications, 1:61
 - communication to employees, 1:63
 - firewall elements, 1:61
 - issuing press releases, 1:61
 - personal trading limitations, 1:62
 - physical separation of departments, 1:61
 - preventing personnel overlap, 1:62
 - proprietary trading procedures, 1:63
 - record maintenance, 1:62
 - reporting systems, 1:62
 - guidance, 1:56–60
 - industry experts, 1:59–60
 - investment research reports, 1:60
 - material information defined, 1:57
 - mosaic theory, 1:58–59
 - nonpublic information defined, 1:58
 - social media, 1:59
 - text of, 1:16, 56
- matrix prices, 4:95; 6:89n.11, 133
- maturity, yield curve and, 3:55
- maturity extension, 4:132
- maturity management, 4:222
- maturity premiums, 3:37
- maximum drawdown, 5:80, 190
- maximum loss
 - bear spread, 5:297, 298
 - box spread, 5:311
 - bull spread, 5:295
 - butterfly spread, 5:302
 - call options, 5:280, 281
 - collars, 5:305, 306
 - covered calls, 5:287
 - protective puts, 5:291
 - put options, 5:283, 284
 - straddles, 5:308, 309
- maximum loss limits, in capital allocation, 5:192
- maximum loss optimization, 5:172
- maximum out-of-pocket expenses, health insurance, 2:421
- maximum profit
 - bear spread, 5:297, 298
 - box spread, 5:311
 - bull spread, 5:295
 - butterfly spread, 5:301, 302
 - call options, 5:280, 281
 - collars, 5:305, 306
 - covered calls, 5:287
 - protective puts, 5:291
 - put options, 5:283, 284
 - straddles, 5:308, 309
- maximum yearly benefits, for health insurance, 2:421
- MBs. *see* mortgage-backed securities
- MCI, 5:99
- MCP. *see* manager continuation policies
- MCTR. *see* marginal contribution to total risk
- mean returns, 2:287; 3:24, 26
- means-end analysis, 2:23
- mean–variance approach
 - behavioral models vs., 2:125
 - for expectation setting, 3:24
 - for portfolio construction, 2:36
- mean–variance optimization (MVO), 5:72
 - after-tax, 2:260
 - asset-only allocation, 3:237–249
 - as asset-only approach, 3:192
 - criticisms of, 3:252–265
 - Black–Litterman model, 3:256–259
 - constraints beyond budget constraints, 3:259
 - non-normal optimization approaches, 3:261–265
 - resampled mean–variance optimization, 3:260–261
 - reverse optimization, 3:254–256
 - investment objectives of, 3:194
 - resampled, 3:260–261
- measurable benchmarks, 3:465n.4; 6:135
- measurement errors, for returns of VC, 5:41
- measure of wealth classifications, 2:163
- medical insurance. *see* health/medical insurance
- mega-cap buy-out funds, 5:33
- members, CFA. *see* Responsibilities of CFA Members and Candidates [Standard of Professional Conduct VII]
- membership status, CFA Institute, 1:171, 175
- memory, hindsight bias and, 2:62
- mental accounting bias, 2:94–95
 - and asset allocation, 3:363–364
 - consequences, 2:64
 - and consumption/savings, 2:37–38
 - detection and methods of overcoming, 2:64–65
 - diagnostic questions, 2:87, 93–94
 - and diversification, 2:124–125
- Merck, 4:263–266
- merger arbitrage hedge fund strategies, 5:58
- Merrill Lynch Corporate Bond (MLCB) index, 5:385
- Methodical investors, 2:169
- Mexican peso, 3:18n.10, 375
- Mexico
 - CLI, 3:82
 - Conference Board index, 3:84
 - currency crisis, 3:75
 - in Hague Conference, 2:304
 - pension funds in, 3:335
 - tax rates, 2:180
 - tax regime, 2:231, 347
 - trade partners, 3:84
 - wealth taxes, 2:306
- mezzanine financing, 5:31
- mezzanine tranche, 4:240
- Michelin, 4:324
- micro attribution
 - defined, 6:146
 - fundamental factor model, 6:160–161
 - overview, 6:154–156
 - sector weighting/stock selection, 6:156–159
- micro-cap equity investors, 4:281
- microeconomics, 3:141
- micro expectations, 3:6
- Microsoft
 - and efficient markets, 2:35
 - equity market data, 4:263–266
 - free-float adjustments, 4:261n.10
 - growth vs. value stock, 4:278
 - and venture capital, 5:39
- mid-cap equity investors, 4:281, 282
- Middle East, 3:74. *see also specific countries*
- middle-market businesses, 2:357
- middle-market buy-out funds, 5:33
- midquote (term), 6:11, 16
- minimum acceptable return (MAR), 5:191
- minimum credit standards, 5:188
- minimum expectations, 3:291, 296
- minimum lot allocations, 1:88–89
- minimum size constraints, 2:343
- minimum transfer amount, 4:90
- minimum-variance hedge ratio, 3:431–433
- Ministry of Finance, 2:507
- minority interests
 - nonmarketable, 5:39, 40
 - valuation discounts for, 2:297
- Misconduct [Standard I(D)], 1:53–56
 - application of the standard, 1:54–56
 - compliance procedures, 1:54
 - guidance, 1:53–54
 - text of, 1:16, 53

- misfit return, 6:149n.19, 153
 misfit risk, 4:311–312
 mismatched swaps, 3:380, 381
 mismatch in character, 2:352–354
 misrepresentation
 in AMC, 1:254
 avoiding, 1:52
 potential, 1:49
 Misrepresentation [Standard I(C)], 1:43–53
 application of the standard, 1:48–53
 case study, 1:211–213
 compliance procedures, 1:46–47
 factual presentations, 1:46–47
 maintaining webpages, 1:47
 plagiarism policy, 1:47
 qualification summary, 1:47
 verifying outside information, 1:47
 guidance, 1:43–46
 impact on investment practice, 1:44
 omissions, 1:45
 performance reporting, 1:44–45
 plagiarism, 1:45–46
 social media, 1:45
 work completed for employer, 1:46
 text of, 1:16, 43
 missed trade opportunity costs, 6:23, 25
 mixed assets, 2:387
 MLCB index. *see* Merrill Lynch Corporate Bond index
 MLM Index. *see* Mount Lucas Management Index
 model portfolios
 in bottom-up portfolio construction, 4:214
 for goals-based asset allocation, 3:292–293
 sub-portfolios of, 3:295–298
 Model Request for Proposal, 1:129
 model risk, 4:88–89; 5:145
 models
 manipulating inputs for, 1:72
 in quantitatively oriented research, 1:128
 model uncertainty, 3:23
 moderate or adapt recommendations
 in behaviorally-modified asset allocation, 2:84–86
 for high-wealth-level investors, 2:91–92
 for low-wealth-level investors, 2:95
 moderating, of cognitive biases, 2:51–52
 Modified Dietz method, 6:225–228
 modified duration
 defined, 4:130; 5:220
 and duration matching, 4:67
 formula for, 4:131n.4
 and swaps, 5:364–365
 Modified Internal Rate of Return (Modified IRR), 6:225–227
 module process, in goals-based allocation, 3:300–304
 momentum
 cross-sectional, 3:358n.21
 earnings momentum investment style, 4:280
 market, 2:140–141
 in systematic TAA, 3:358
 time-series, 3:358n.21
 and trading costs, 6:30
 Monaco, 2:304
 monetary policy
 in business cycle analysis, 3:54, 62–67
 with interest rates at zero or less, 3:65–66
 money supply trends, 3:65
 and Taylor rule, 3:63–64
 in United States vs. Eurozone, 3:66
 in country risk analysis, 3:78
 defined, 3:60
 expansionary, 6:80
 and fiscal policy, 3:68
 in recessions, 3:60
 monetary position limits, 5:191–192
 monetization, 2:322
 of calls, 5:398n.33
 equity, 2:343–347
 of tax-free exchanges, 2:369
 monetization strategies, 6:77–78
 for business equity, 2:358–366
 evaluating, 2:362–366
 types of, 2:358–362
 for investment real estate, 2:367–369
 donor-advised funds, 2:367–368
 mortgage financing, 2:367
 for single-stock position, 2:341
 money duration
 defined, 4:130
 and duration management, 4:138
 and duration matching, 4:67–69, 71
 money managers, forecasting by, 3:89–90
 money markets, 2:526–527
 money spreads
 bear spreads, 5:296–299
 bull spreads, 5:293–296
 butterfly spreads, 5:299–303
 in equity portfolios, 5:293–303
 money supply, trends in, 3:65
 money-weighted rate of return (MWR), 6:128–131
 monitoring
 liquidity requirement, 6:68, 72, 75–76
 of managers, 6:179–180
 outcome, 3:8
 portfolio (*see* portfolio monitoring)
 risk exposure, 2:392
 Monte Carlo simulation
 for asset allocation, 2:196–199
 in asset-only allocation, 3:249–252
 estimating core capital with, 2:285–288
 for estimating VaR, 5:167–168
 in resampling, 3:260
 of returns for endowments, 2:493–494
 Montenegro, 2:304
 Montier, James, 2:53–54
 Moody's Investors Service
 bond ratings, 4:98n.24, 192n.2
 effective duration of bonds across rating spectrum, 4:196
 minimum credit standards, 5:188
 recovery rate for Latin American bonds, 4:235
 reserve funding monitoring, 2:503
 more strict (MS) countries, 1:24–25
 more strict law, 1:22
 Morgan Stanley Capital International (MSCI). *see also specific indexes beginning* MSCI
 broad-market index by, 3:471; 6:137
 capitalization weighting of indexes by, 3:473, 474
 emerging markets on indexes of, 3:198
 equity styles, 4:292
 float-adjusted indexes by, 3:406
 Global Industry Classification Standard, 4:324
 and Google IPO, 5:32
 gross and net total return indexes by, 3:485, 486
 growth/allocation criteria and rebalancing rules for indexes, 4:292
 index composition and characteristics, 4:269
 stock categorization by, 4:328
 Morningstar, 2:58
 active-manager benchmarks, 5:60
 equity styles, 4:292
 growth/allocation criteria and rebalancing rules for indexes, 4:292
 style box, 4:294
 Morningstar MSCI, 5:61
 Morocco, 2:304
 mortality credits, 2:427, 429–430
 mortality expectations, 2:409–410
 mortality risk, 2:401
 mortality tables, estimating core capital with, 2:280–284
 mortgage-backed securities (MBSs)
 in credit portfolios, 4:237–238
 defined, 4:236
 and negative convexity, 4:134
 for reducing convexity, 4:168–169
 mortgage financing, 2:367
 mortgage loans (mortgages), 2:178, 388
 mortgage REITs, 5:14
 mosaic theory
 and AMC, 1:249
 applying, 1:65, 66
 in case studies, 1:210
 and material nonpublic information, 1:58–59
 Mount Lucas Management (MLM) Index, 5:86, 89
 moving averages, 2:34; 3:402
 MPSR. *see* multiperiod Sharpe ratio
 MSCI. *see* Morgan Stanley Capital International
 MSCI Asset Owner survey, 5:21–22
 MSCI China Index, 3:134n.14, 135, 136
 MSCI EAFE (Europe, Australasia, and Far East) Index
 as benchmark, 6:136
 in capital market forecasts, 3:44
 equity swap, 5:408
 international diversification with, 5:383
 MSCI International All Country World Index (MSCI ACWI)
 aggregate market value of equities in, 4:255
 characteristics of, 4:269
 and home-country bias, 3:208
 index strategies with exposure to, 4:330–331
 and less liquid assets, 3:266

- MSCI US REIT Index, 5:16, 17
 MSCI World ex-Australia Index, 4:310–312
 MSCI World Growth Index, 4:327
 MSCI World Index
 as broad-market index, 3:469
 characteristics, 4:269
 commodities correlations, 5:109–110
 constructing benchmarks based on, 3:482
 as equity universe, 3:483
 hedge fund correlations, 5:111
 size of bond indexes vs., 4:93
 MSCI World Value Index, 4:327
 MS countries. *see* more strict countries
 multifactor models
 for capital market expectations, 3:27–31
 for risk, 3:200; 4:273
 multifunctional duration. *see* key rate duration
 multi-period portfolio models, 3:282
 multiperiod Sharpe ratio (MPSR), 3:45
 multistage time horizons, 2:178
 municipal bond futures contracts, 5:226
 municipal bonds, taxation of interest on, 2:253
 Municipal Securities Rulemaking Board, 4:21
 must (term), 6:214, 290
 mutual benefit, adviser-client relations and, 2:119
 mutual funds, 2:526
 alphas of, 2:32
 benchmark/style discrepancies, 4:278n.31
 ETFs vs., 4:268, 270–271
 for fixed-income portfolios, 4:22, 101–102
 and indexing, 4:259
 laddered portfolios vs., 4:108
 manager universes for, 3:469
 pass-through treatment of capital gains, 4:33
 Sharpe's returns research, 4:277
 skilled and unskilled, 2:58–59
 SRI, 4:297
 zero-alpha, 2:58–59
 mutual life insurance companies, 2:411
 mutuals, 2:499
 MVI. *see* Market Volatility Index
 MVO. *see* mean–variance optimization
 MWR. *see* money-weighted rate of return
 Myner Commission (UK), 2:473
 myopic loss aversion, 2:72–73
- N**
 NAFTA. *see* North American Free Trade Agreement
 NAIC. *see* National Association of Insurance Commissioners
 NAICS. *see* North American Industry Classification System
 naïve diversification, 2:122
 named-risks homeowner's insurance policy, 2:418
 names, fictitious, 1:173, 174, 176
- NAREIT. *see* National Association of Real Estate Investment Trusts
 NAREIT Index. *see* National Association of Real Estate Investment Trusts Index
 NASDAQ
 market quality of, 6:20–21
 options strategies involving, 5:277
 quote-driven market, 6:11
 trade size on, 6:41
 and venture capital returns, 5:38
 NASDAQ 100 Trust Shares, 5:277n.3
 NASDAQ Composite Index
 historical method with portfolio invested in, 5:160, 161n.39
 Monte Carlo simulation with portfolio invested in, 5:167–168
 variance–covariance method with portfolio invested in, 5:156
 National Association of Insurance Commissioners (NAIC), 2:501, 506–507
 National Association of Real Estate Investment Trusts (NAREIT), 5:15
 National Association of Real Estate Investment Trusts (NAREIT) Index
 as benchmark, 5:16, 19
 correlation of S&P 500 and, 5:25
 historical performance, 5:17–18
 indirect investment in real estate with, 5:108, 116, 122, 123, 128
 unsmoothed performance, 5:23–24
 National Bureau of Statistics (NBS), 3:83
 National Council of Real Estate Investment Fiduciaries (NCREIF), 3:44
 National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index
 as benchmark, 5:19
 historical performance, 5:17–18
 indirect investment in real estate with, 5:108, 114, 116, 121–123, 128
 as benchmark, 5:16
 unsmoothed performance, 5:23–24
 National Futures Association (NFA), 3:411; 5:85
 National Investor Relations Institute, 4:299
 National Venture Capital Association (NVCA), 5:36, 38
 National Westminster Bank, 5:196
 natural hedge, 3:435
 natural liquidity, 6:11–12
 nature of employment, 1:108–109
 NatWest Markets, 5:196–197
 NAV. *see* net asset value
 NBS. *see* National Bureau of Statistics
 NCREIF. *see* National Council of Real Estate Investment Fiduciaries
 NCREIF Property Index. *see* National Council of Real Estate Investment Fiduciaries Property Index
 needs, financial
 and ability to take risk, 2:174–175
 estimating, 2:280–284
 needs analysis method, 2:412
 need-trustworthy-agent trading focus, 6:38–40
- negative convexity, 4:134
 negative goals, 3:294n.30
 negative interest rates, 3:65–67
 negative liquidity events, 2:176
 negative yields, 4:127
 neoclassical approach to growth
 accounting, 3:126–127, 129–130
 net asset value (NAV), 4:101; 5:59
 Net Contributions strategy, 6:151
 net employment capital, 2:279
 Netherlands
 equity real rates of return, 4:257
 equity risk premium, 3:39
 Eurozone membership, 3:9n.
 exit taxes, 2:306–307
 expected returns for equities/bonds, 3:25
 gift tax, 2:293
 in Hague Conference, 2:304
 market integration, 3:43
 pension fund equity allocations, 4:255
 real GDP growth rate, 3:32
 REITs, 5:14, 25
 taxable gifts, 2:291
 tax-advantaged savings accounts, 2:246
 tax regime, 2:231, 347
 trade partners, 3:83, 84
 wealth taxes, 2:306
 net interest margin, 2:521
 net interest spread, 2:503
 net investment income, 2:487–488
 net-of-fees return, 6:250, 261
 net-of-tax principal, 2:257–258
 net payment cost index, 2:414–415
 net premiums, of life insurance, 2:411–412
 netting, 5:187–188
 netting risk (settlement netting risk), 5:151
 net wealth, 2:390, 397–400
 net wealth tax, 2:276–277
 networks, expert, 1:67
 net worth, 2:390; 6:68
 net worth tax, 2:276–277
 neuro-economics, 2:19–20
 neutral level of interest rates, 3:63
 New Basel Capital Accord (Basel II), 2:523; 5:181
 new firms, starting, 1:112
 new media, information retention on, 1:147
 New York, New York, 2:310–311
 New York Federal Reserve, 5:180
 New York State, 2:507, 517
 New York Stock Exchange (NYSE)
 Archipelago Exchange merger, 6:42
 cross-listing of stock with TSE, 6:31–32
 as hybrid market, 6:17
 market quality of, 6:20–21
 and NAREIT Index, 5:17
 operational risk management by, 5:145
 and price volatility of LSE, 6:55, 61
 Trade and Quote database, 6:52
 trade size on, 6:41
New York Times, 5:32
 New Zealand
 equity real rates of return, 4:257
 in Hague Conference, 2:304

- marginal tax rates, 2:180
 - tax regime, 2:231, 347
 - New Zealand dollar
 - as commodity currency, 3:439
 - currency code, 3:375
 - in currency pairs, 3:376, 428
 - NFA. *see* National Futures Association
 - Nigeria, 2:231, 347
 - Nikkei 225 Index, 3:140
 - as benchmark, 3:480–481
 - composition/characteristics, 4:268
 - price-weighting of, 3:478n.16; 4:262
 - stock index futures on, 4:275
 - Nikkei Stock Average, 3:474; 4:268
 - no free lunch (assumption), 2:29
 - noise, in performance evaluations, 6:177–178
 - nominal bond yields, 3:76–77
 - nominal default-free bonds, 3:91–92
 - nominal gross domestic product, 3:32, 65
 - nominal interest rates, 3:36; 4:9
 - nominal position limits, 5:191–192
 - nominal risk-free interest rate, 3:36
 - Nominations Committee, 6:212
 - noncallable debt, adding calls to, 5:400–403
 - non-cancelable and guaranteed renewable policy, for disability income insurance, 2:418
 - non-cancelable policy, for disability income insurance, 2:418
 - noncompete agreements, 1:107
 - non-controlling interest, discount for, 2:339
 - non-core assets, 2:360
 - noncorrection of known errors, 1:48
 - non-current assets, 2:386
 - non-deliverable forwards, 3:440–441
 - nondiversifiable risk, excess return to, 6:168
 - Nonfarm Nonfinancial Corporate Business, 3:158–159
 - non-fee paying portfolios, in composites, 6:256
 - nonfinancial costs, of portfolio rebalancing, 6:84
 - nonfinancial risks
 - Basel II requirements, 5:181
 - defined, 5:141
 - measuring, 5:180–181
 - operational risk, 5:180–181
 - non-insurance risk transfers, 2:432
 - non-investable hedge fund indexes, 5:68
 - non-life insurance companies, 2:511–519
 - legal and regulatory factors, 2:517
 - liquidity requirements, 2:515
 - portfolio policy determination, 2:517
 - return objectives, 2:513–515
 - risk objectives, 2:512–513
 - tax concerns, 2:516–517
 - time horizon, 2:515–516
 - nonlinear correlations of assets, 3:20
 - non-marketable assets, 2:389–390
 - employer pension plans, 2:389–390
 - government pensions, 2:390
 - non-normal optimization approaches, 3:261–265
 - nonparametric (term), 5:161
 - non-participating life insurance policy, 2:407
 - nonpublic information
 - acting on, 1:63, 66
 - analyst recommendations as, 1:65–66
 - controlling, 1:64
 - defined, 1:58
 - material (*see* Material Nonpublic Information [Standard II(A)])
 - standards for priority of transactions with, 1:158
 - non-publicly traded marketable assets, 2:388–389
 - annuities, 2:389
 - business assets, 2:389
 - cash-value life insurance, 2:389
 - collectibles, 2:389
 - real estate, 2:388
 - non-recourse loans, 2:367
 - non-recourse mortgages, 2:388
 - nonstationarity, 3:17
 - nonsystematic risk, 5:229
 - non-taxable accounts, 2:390
 - normal beta, 6:138
 - normal portfolio, 4:283; 6:138
 - North America, 3:84–86; 5:20, 22. *see also specific countries*
 - North American Free Trade Agreement (NAFTA), 3:82
 - North American Industry Classification System (NAICS), 4:324
 - Norway
 - equity real rates of return, 4:257
 - equity risk premium, 3:39
 - expected returns for equities/bonds, 3:25
 - in Hague Conference, 2:304
 - sovereign wealth funds in, 3:338
 - tax regime, 2:231, 347
 - Norway model, 3:309
 - no securities laws (NS) countries, 1:24–25
 - notes
 - dual-currency, 4:184
 - extinguishing accrual, 4:184
 - floating-rate, 4:83; 5:366–368
 - interest rate differential, 4:184
 - leveraged floating-rate, 5:366–368
 - power-reverse dual, 4:184
 - range accrual, 4:184
 - structured, 4:183–184; 5:359, 366–370
 - US Treasury, 3:150; 4:125–129, 168–169
 - notification
 - changes to investment process, 1:142–144
 - client bonus compensation, 1:116–117
 - Code and Standards, 1:114
 - fund mandate change, 1:142
 - known violations, 1:27
 - outside compensation, 1:117
 - notional position limits, 5:191–192
 - notional principal (NP)
 - calculating, 4:83
 - and currency vs. interest rate swaps, 5:374–375
 - and loan principal, 5:179–180
 - and using swaps to adjust duration, 5:364–365
 - Novatel Wireless, Inc., 5:28
 - NS countries. *see* no securities laws countries
 - NVCA. *see* National Venture Capital Association
 - NYSE. *see* New York Stock Exchange
 - NYSE Arca Exchange, 6:16
 - NYSE Fact Book, 6:41n.27
- O**
- OAS. *see* option-adjusted spread
 - objective function, 6:45–46
 - objectives
 - investment
 - in asset allocation, 3:181–182, 194
 - decision making based on, 3:182
 - of defined benefit pension fund, 3:181
 - of endowment fund, 3:181
 - establishing, 1:77
 - of individual investors, 3:181
 - in investment policy statements, 1:93, 148; 3:184
 - and risk tolerance, 3:182
 - management of concentrated single-asset positions, 2:327–328
 - pension fund, 4:310–311
 - return
 - asset allocation based on, 2:192–195
 - for banks, 2:523
 - for defined-benefit plans, 2:468–470
 - for endowments, 2:492–494
 - for foundations, 2:486
 - for individual investors, 2:172–174
 - for life insurance companies, 2:503–505
 - for non-life insurance companies, 2:513–515
 - in sample IPSs, 2:186, 189
 - risk
 - asset allocation based on, 2:193–195
 - for banks, 2:522
 - for defined-benefit plans, 2:465–468
 - for endowments, 2:491–492
 - for foundations, 2:486
 - for individual investors, 2:174–175
 - for life insurance companies, 2:501–503
 - for non-life insurance companies, 2:512–513
 - of risk management strategies, 2:391
 - trading, 6:37–40
 - objectives and constraints framework, 2:478–479
 - objectivity. *see also* Independence and Objectivity [Standard I(B)]
 - in index construction, 3:476
 - and loyalty to clients, 1:245
 - of public companies, 1:33
 - recommendation, 1:40–41
 - OECD. *see* Organisation for Economic Co-operation and Development
 - off-balance-sheet debt, 2:330
 - offer price, spot currency, 3:377
 - off-market swaps, 5:358n.1
 - offshore banking, 2:310–311
 - offshore investments, 2:185

- oil shocks, 2:142; 3:74
 - Oman, 3:76
 - omissions, 1:45
 - OMS. *see* order management system
 - one-factor models, active returns
 - relative to, 6:156
 - 1/N rule, 2:122; 3:311
 - 130/30 short extension strategies, 4:300–301
 - “120 minus your age” rule, 3:306–307
 - ongoing expenses, liquidity and, 2:176
 - Ontario Pension Commission, 2:473
 - on-the-run bond, 4:200
 - on-the-run yield curve, 4:124–127
 - OPEC. *see* Organization of the Petroleum Exporting Countries
 - open-ended bond mutual funds, 4:101–102
 - open-end funds, 6:259, 290
 - open market operations, 3:89–90
 - open outcry auction markets, 6:10
 - operating foundations, 2:484–485
 - operating investments, 2:476–477
 - Operational Due Diligence Survey, 5:9–10
 - operational review, private equity, 5:44
 - operational risk
 - identifying, 5:144–145
 - measuring, 5:180–181
 - opinions
 - about CFA Program or Institute, 1:166
 - of credit rating agency, 1:33–34
 - customer, 5:44
 - facts in reports vs., 1:141, 212
 - group research, 1:132
 - integrity of, 1:35
 - providing, as facts, 1:141
 - reasonable basis for, 1:211–212
 - reflective of current investment, 3:465n.4; 6:135
 - opportunistic participation strategies, 6:44–45
 - opportunistic real estate strategies, 6:261
 - opportunity costs
 - with currency hedging, 3:392
 - missed trade, 6:23, 25
 - sell disciplines based on, 4:302
 - optimal corridor width, 3:312–313
 - optimism, 2:132
 - optimization. *see also* mean–variance optimization (MVO)
 - as asset-only approach, 3:192
 - maximum loss, 5:172
 - non-normal, 3:261–265
 - portfolio
 - after-tax, 3:341–344
 - indexed portfolios, 4:272–274
 - portfolios with currencies, 3:388–389
 - reverse, 3:254–257
 - surplus, 3:192, 277–282
 - compared to other approaches, 3:286–287
 - defined, 3:276
 - as liability-relative approach, 3:192
 - option-adjusted spread (OAS), 4:203
 - calculation for portfolio, 4:204
 - for corporate bonds (2001–2015), 4:198
 - as credit quality measure, 4:218
 - empirical duration vs., 4:197
 - US CMBS and US corporate bonds, 4:204
 - option portfolio risk management
 - strategies, 5:333–343
 - delta hedging over time, 5:335–342
 - gamma and risk of delta, 5:342–343
 - interest rate options and options on futures, 5:344
 - vega and volatility risk, 5:343
 - option-pricing theory, 5:174–176
 - options, 1:154. *see also specific types*, e.g.: call options (calls)
 - forward conversions with, 2:345
 - on futures, 5:344
 - measuring credit risk of, 5:178–180
 - risk management with (*see* risk management applications of option strategies)
 - as tail risk hedge strategy instrument, 4:232–233
 - yield curve strategies with, 4:164–169
 - option to purchase additional insurance rider, 2:418
 - Oracle Corporation, 6:42
 - Orange County, California, 4:184
 - order-driven markets, 6:15–16
 - order fragmentation, 6:42
 - order management system (OMS), 6:46
 - orders
 - representing, 6:18
 - types of, 6:7–9
 - ordinary life insurance, 2:499n.19
 - Organisation for Economic Co-operation and Development (OECD)
 - CLI, 3:82
 - Commentary, 2:309
 - economic data from, 3:104
 - Model Treaty, 2:308–309
 - organizational changes, disclosure of, 1:258
 - Organization of the Petroleum Exporting Countries (OPEC), 3:74
 - Original Dietz method, 6:225–227
 - orphan equities, 5:95, 98
 - OTC derivatives. *see* over-the-counter derivatives
 - others to whom duty is owed (ethical decision-making framework), 1:200
 - Other Than Temporary Impairment (OTTI), 2:502n.22
 - outcome monitoring, for capital market expectations, 3:8
 - out-of-date information, 1:52–53
 - out-of-the-money (OTM) options
 - protective puts with, 3:422
 - put spreads with, 3:422–423
 - risk reversal with, 3:422
 - seagull spreads with, 3:423–424
 - strangles with, 3:405
 - output gap, business cycle, 3:51
 - outright sale
 - of concentrated position, 2:328–329
 - of single-stock position, 2:341
 - outside compensation, 1:117
 - outside information, verifying, 1:47
 - outside parties, referral arrangements and, 1:162–164
 - overall asset allocation, revisiting, 3:304
 - overall portfolio, in goals-based allocation, 3:298–300
 - overall trade balance, 3:79n.64
 - overbought (term), 3:401
 - overconfidence
 - certainty, 2:74–75
 - and halo effect, 2:144
 - and market bubbles, 2:143
 - prediction, 2:74–75
 - in skills, 2:126–131
 - overconfidence bias, 2:73–76, 91
 - of analysts, 2:126–131
 - case studies, 2:128, 130–131
 - remedial actions for, 2:128–131
 - and asset allocation, 3:362
 - and committee decision making, 2:137
 - consequences of, 2:75
 - detection and methods of overcoming, 2:75–76
 - diagnostic questions, 2:88–90
 - of management, 2:132
 - and overinvestment in company stock, 2:123
 - prediction and certainty
 - overconfidence, 2:74–75
 - overconfidence trap, 3:21
 - overfunded pension plans, 2:466
 - over-hedging, 3:421
 - overnight Fed funds rate, 5:222n.9
 - oversold (term), 3:401
 - over-the-counter (OTC) derivatives
 - collateral in, 5:187
 - credit risk with, 5:143
 - marking to market in, 5:186–187
 - regulatory risk, 5:146–147
 - settlement risk, 5:146
 - tax-related considerations with, 2:342–343
 - over-the-counter markets, credit securities in, 4:199
 - owned benchmarks, 3:465n.4; 6:135
 - owners, with concentrated positions
 - monetization decision-making process for, 2:336–337, 362–364
 - personal lines of credit for, 2:360–361
 - profile of, 2:358
 - ownership
 - beneficial, 1:158
 - in civil law, 2:274
 - of completed prior work, 1:111
 - financial, 5:14
 - of firm's records, 1:147, 148
 - joint, 2:274
 - sole, 2:274
 - stock, 1:151, 152
- P**
- Pacific Rim, 2:322. *see also specific countries*
 - Page, Larry, 5:32
 - paid-in capital, 6:265, 290
 - pairs trading, 4:298; 6:42–43
 - Pakistan, 2:180, 231, 347
 - Panama, 2:304
 - panel methods, 3:48–49
 - Paraguay, 2:304
 - Paris, France, 2:310–311
 - Paris Bourse, 6:16
 - partial correlation of assets, 3:20

- partial disability benefit, 2:417
- partial duration (partials), 4:130, 154–155, 159–160. *see also* key rate durations
- partial DV01 (PDV01), 4:155
- partial fills, 1:85; 6:16
- partial price value of a basis point (PPVBP), 4:155
- participant-directed DC pension plans, 2:464
- participate (do not initiate) orders, 6:8
- participating life insurance policy, 2:406–407
- participation strategies, 6:42–47
- parties
 - to annuities, 2:423
 - outside, 1:162–164
 - related, 1:38–39
- partners
 - general, 6:266, 289
 - limited, 6:266, 290
 - strategic, 5:31, 32
 - turnaround, 5:99
- partnerships
 - FLPs, 2:297–298
 - limited, 6:266, 290
 - tax avoidance with, 2:181
- part-time status, 1:116
- Pascal, Blaise, 2:20–21
- passing exams in consecutive years, 1:174–175
- passive hedging, 3:393
- passive investing
 - in equities, 4:258–276
 - equity index futures, 4:274–275
 - equity total return swaps, 4:275–276
 - indexed portfolios, 4:267, 270–276
 - with indexes, 4:260–269
 - portfolio construction for, 4:274
 - in fixed-income instruments
 - active investment vs., 4:47–48
 - bond market exposure methods, 4:98–104
 - fixed-income market definition, 4:98
 - strategies for, 3:466
- passive investors, 2:108–109
 - in behavioral alpha process, 2:111–112
 - trading behavior of, 2:254
- passive management
 - of allocations to asset classes, 3:217–219
 - of asset class weights, 3:216–217
 - benchmarks for, 3:465
 - of equity investments, 4:257
- Passive Preservers, 2:113–115
- passive traders, 6:34, 36
- pass-through treatment, 4:33
- path dependency, 2:197n.8
- paying the offer, 3:377
- payment netting, 5:187
- payments
 - balance of, 3:79n.64
 - copayments, 2:403n.3, 421
 - foreign currency, 5:252–254
 - prepayment risk, 4:238
 - single-payment loans, 5:215–218
- payout methods, of annuities, 2:428–429
- pay-to-play scandals, 1:34
- PBGC. *see* Pension Benefit Guaranty Corporation
- PBO. *see* projected benefit obligation
- PCP. *see* Professional Conduct Program
- PDV01. *see* partial DV01
- P/E. *see* price to earnings ratio
- peak accumulation phase (financial stages of life), 2:393
- Pearl Investment Management, 1:202–213
 - Code of Ethics and Standards of Professional Conduct violations of new employees, 1:202–205
 - in ordinary business practices, 1:208–213
 - with rush projects, 1:206–208
- peer groups, manager, 3:468–469. *see also* manager universes
- pegging strategies, 6:45
- Pension Benefit Guaranty Corporation (PBGC), 2:468
- pension fund consultants, 4:277
- pension funds, 2:463–484; 5:9
 - adjusting asset allocation of, 5:241–243, 245–246
 - application of VaR to, 5:168
 - arbitrage argument for, 2:251–254
 - creating synthetic cash for, 5:238–240
 - defined, 2:463
 - equity allocations of, 4:255
 - performance objectives of, 4:310–311
 - portfolio management for, 2:463–484
 - defined-benefit plans, 2:464–477
 - defined-contribution plans, 2:478–483
 - hybrid plans, 2:483–484
 - portfolios of managers for, 4:306–309
- Pension Funds* (Dietz), 6:210
- pension income, 2:469
- pension liabilities
 - active-lives portion of, 2:465, 469, 471–472
 - defined, 2:463
 - managing investments for, 2:469
 - pension investments and, 2:476–477
 - retired-lives portion of, 2:465, 469, 471
- pension participants, objectives and constraints of, 2:478–479
- pension plans
 - allocations to fixed income in, 3:349
 - in asset allocation, 2:444–445; 3:335–337
 - asset size and performance of, 3:323
 - changing liabilities of, 3:331
 - defined-benefit, 2:464–477; 5:142
 - asset size and performance of, 3:323
 - corporate risk management with, 2:476–477
 - defined, 2:463
 - defined-contribution vs., 2:463–464
 - discounting liabilities for, 2:283
 - investment objective of, 3:181
 - legal and regulatory factors with, 2:472–473
 - liabilities for, 3:273–276
 - liability-driven investing, 4:78–88
 - liability-relative allocation for, 3:208–211
 - liquidity requirements for, 2:470–471
 - market risk for, 5:142
- portfolio management for, 2:464–477
 - return objectives for, 2:468–470
 - risk objectives for, 2:465–468
 - tax concerns with, 2:472
 - time horizon for, 2:471–472
 - unique circumstances of, 2:473–476
- defined-contribution, 2:477–484
 - behavioral factors in portfolio construction for, 2:120–125
 - middle-aged participant, 2:478
 - objectives and constraints framework, 2:478–479
 - for participants in early career, 2:479
- employer pension plans, 2:389–390
- government pensions, 2:390
- hybrid, 2:463, 483–484
- liquidity as constraint for, 3:328
- in net wealth, 2:399
- portfolio rebalancing in, 3:353
- taxation of, 3:341
- Pension Protection Fund (PPF), 2:390
- pension surplus, 2:465, 467
- percentage-of-portfolio rebalancing, 6:90–93
- percentage-of-volume strategy, 6:43
- percent-range rebalancing, 3:224, 312
- perfect competition, 2:12
- perfect information, 2:12, 15
- perfect markets, 3:41
- perfect rationality, 2:12
- perfect self-interest, 2:12
- Performance and Valuation (AMC Part E), 1:243, 254–255
- performance appraisal, 6:167–175
 - defined, 6:123
 - for hedge funds, 5:80–82
 - quality control charts, 6:171–175
 - risk-adjusted measures, 6:168–171
- performance assessment and hindsight bias, 2:62
 - with Monte Carlo simulations, 2:198–199
- performance attribution, 6:146–167
 - defined, 6:123
 - fixed-income, 6:161–167
 - and knowledge of the law, 1:33
 - macro attribution, 6:148–154
 - managers' impact on, 6:147
 - micro attribution, 6:154–161
 - and suitability, 1:100
- performance-based fees, 4:315, 321–322; 5:75
- performance calculations
 - and asset weighting, 1:99
 - and length of time, 1:98
 - methodology for, 1:100–101
 - on selected accounts, 1:100
- performance evaluation. *see also* portfolio performance evaluation
 - defined, 6:120
 - for hedge funds, 5:78–84
 - consistency, 5:82–84
 - performance appraisal measures, 5:80–82
 - returns, 5:79
 - skewness and kurtosis, 5:82
 - volatility and downside volatility, 5:79–80
 - and risk management, 5:189–191

- performance measurement(s),
 6:123–133
 annualized return, 6:132
 benchmarks for, 1:93
 data quality issues, 6:132–133
 defined, 6:123
 and independence/objectivity, 1:33
 linked internal rate of return,
 6:131–132
 money-weighted rate of return,
 6:128–131
 time-weighted rate of return,
 6:126–131
 total rate of return, 6:126
 without intraperiod external cash
 flows, 6:123–125
- performance netting risk, 5:150–151
- performance persistence, 5:92
- performance presentation
 development of, 6:210–211
 and misrepresentation, 1:212–213
 and prior fund/employer, 1:99
 for private equity, 6:268
 for real estate, 6:261–262
 and simulated results, 1:99–100
 for wrap fee/SMA composites, 6:270
- Performance Presentation [Standard
 III(D)], 1:97–101
 application of the standard, 1:98–101
 case study, 1:213
 compliance procedures, 1:98
 with GIPS standards, 1:98
 without GIPS standards, 1:98
 guidance, 1:97–98
 text of, 1:17, 97
- performance reporting, 1:44–45
- performance stopouts, 5:185
- period-by-period approach, 3:132n.11
- period-certain annuities, 2:425, 428
- periodic auction markets, 6:16
- periodic table of investment returns,
 2:59–60
- permanent income hypothesis,
 3:69–70
- permanent life insurance, 2:406–407
- Perold, Andre, 6:24
- Perold-Sharpe analysis, 6:94–99
 buy-and-hold strategies, 6:95–96
 constant-mix strategies, 6:96
 CPPI strategies, 6:97
 linear, concave, and convex strategies,
 6:97–98
 summary of strategies, 6:98–99
- Perrier family (case study), 2:433–440
- personal actions, 1:55
- personal assets, 2:387
- personal goals, 3:214
- personality types of individual investors,
 2:167–171
 cautious investors, 2:169
 individualist investors, 2:169
 methodical investors, 2:169
 spontaneous investors, 2:169
- personal lines of credit, 2:360–361
- personal risk bucket, 2:334, 335; 3:214
- personal trading, 1:69–70
 and conflict of interest, 1:155
 disclosure of, 1:161
 disclosure of policies for, 1:160
- limitations on, 1:62
 priority of transactions for, 1:157,
 204–205
- personal trusts, 2:183–184
- personal umbrella liability insurance
 policy, 2:421–422
- personnel
 changes in, 1:258
 preventing overlap of, 1:62
 privity to recommendation, 1:84
 reporting requirements for,
 1:159–160
- Peru, 2:304
- peso, Chilean, 3:438
- peso, Mexican, 3:18n.10, 375
- Pfandbriefe, 4:240
- philanthropic goals, 3:214
- Philippines
 liquidity in, 3:329
 marginal tax rates, 2:180
 tax regime, 2:231, 347
- PIC multiple, 6:265, 290
- PIPE. *see* private investment in public
 entity
- pips, 3:376
- plagiarism, 1:49–51
 and misrepresentation, 1:45–46
 policies on, 1:47
- plan sponsors, 2:463; 3:466–467
- PLC. *see* public limited company
- pledging requirement, 2:522
- PMI. *see* purchasing managers index
- point estimates, 3:24n.19
- points, forward exchange rate, 3:377
- Poland
 bond yields, 3:76
 in Hague Conference, 2:304
 tax regime, 2:231, 347
- policy allocations, in macro attribution,
 6:148–149
- policyholder reserves, 2:503n.23
- policyholder's share of income, 2:506
- policy portfolio, 3:201. *see also* strategic
 asset allocation
- policy pricing, insurance, 2:513
- policy reserves, of life insurance,
 2:412–413
- political leadership, 3:79
- political risk, 5:150
- pooled assets, 3:325
- pooled funds, managing, 1:247
- pooled investment vehicles, 4:22
- population mean, estimating, 3:17n.7
- portability of past performance, 6:256
- portable alpha, 4:298, 313
- portable assets, 2:464
- portfolio(s). *see also* bond portfolio(s)
 adding, removing, and switching,
 6:242
 aggregate family, 2:291–293
 barbell, 4:107, 108
 defined, 4:142
 duration-neutral, 4:151–160,
 162–164
 extreme, 4:172–173
 extreme vs. less extreme, 4:175–177
 laddered portfolio vs., 4:172–175
 structure, 4:141–145
 benchmark, 4:283
- bullet, 4:107
 defined, 4:141
 duration-neutral, 4:151–160,
 162–164
 extreme, 4:173–174
 structure, 4:141–145
 butterfly, 4:160–162
 commodities' roles in, 5:53–55
 completeness, 2:355
 core-satellite, 4:309–312
 corner, 3:243n.6
 credit, 4:191
 defined, 4:191
 international, 4:233–236
 liquidity risk in, 4:226–231
 declining-balance, 3:292n.27
 developing, 1:75–76
 distressed securities' roles in, 5:98–100
 documentation of, 6:236
 equity, 5:230–232
 fixed-income, 3:390; 5:363–366
 foreign-market asset, 5:254–258
 GIPS definition, 6:290
 GIPS standards for, 6:210
 global market, 3:308
 in asset-only allocation, 3:207–208
 to mitigate illusion of control bias,
 3:363
 in passive management, 3:217
 government bond, 5:223–226
 hedge funds' roles in, 5:72–74
 including and excluding, in
 composites, 6:241–244
 indexed, 4:267, 270–276
 institutional, 4:271
 laddered, 4:169
 construction, 4:9, 107–108
 extreme barbell portfolio vs.,
 4:172–173
 less extreme barbell portfolio vs.,
 4:174–175
 levered risk parity, 3:310
 managed futures' roles in, 5:90–92
 market indexes in analysis of, 3:472
 market-neutral long-short, 4:299
 model, 3:292–293, 295–298; 4:214
 multi-period portfolio models, 3:282
 non-fee paying, 6:256
 normal, 4:283; 6:138
 OAS calculation, 4:204
 optimization of, 3:388–389
 overall, 3:298–300
 policy, 3:201
 private equity's roles in, 5:42–43
 qualifying, for composites, 6:235–238
 rational, 2:36
 real estate's roles in, 5:21–27
 sub-portfolios, 3:214–216, 292–293,
 332
 suitability of equity market forecasts
 for, 3:142–143
 suitability of investment for, 1:94–95
 wrap fee/SMA, 6:217, 268–270
- portfolio construction
 asset allocation in, 3:179–180
 behavioral factors in, 2:120–125
 and behavioral portfolio theory,
 2:124–125
 company stock, 2:122–123

- excessive trading, 2:123–124
- home bias, 2:124
- inertia and default options, 2:120–121
- naïve diversification, 2:122
- target date funds, 2:121
- in behavioral finance, 2:167
- and bond market liquidity, 4:21–22
- bottom-up approach, 4:214–215, 224
- core-satellite, 4:309–312
- for credit portfolios (*see* credit strategies)
- excess return and, 4:205
- G-spread and, 4:200
- and liquidity needs, 4:21–22
- for passive equity investing, 4:274
- sub-portfolios
 - for goals-based allocation, 3:292–293, 295–298
 - module process, 3:300–304
 - top-down approach, 4:224
 - in traditional finance, 2:36, 166
- portfolio decisions, execution of. *see* execution of portfolio decisions
- portfolio diversification. *see* diversification
- portfolio flows, 6:279
- portfolio management
 - diversifying concentrated portfolios, 5:380–382
 - for individual investors, 2:157–223
 - about, 2:158
 - asset allocation, 2:188–199
 - case study, 2:158–162
 - investment policy statements, 2:171–187
 - investor characteristics, 2:162–171
 - practice problems, 2:202–211
 - solutions to problems, 2:212–223
 - for institutional investors, 2:461–544
 - about, 2:462
 - banks, 2:519–526
 - endowments, 2:489–499
 - foundations, 2:484–489
 - insurance industry, 2:499–519
 - investment intermediaries, 2:526–527
 - pension funds, 2:463–484
 - practice problems, 2:530–536
 - solutions to problems, 2:537–544
 - to mandates, 1:247
- portfolio managers. *see also* manager continuation policies (MCP)
 - allocation of funds to, 5:184
 - duties of, 6:6
 - equity
 - portfolios of, 4:306–313
 - questionnaires for, 4:315–321
 - selecting, 4:314–322
 - impact of, 6:147
 - independence of, 1:32
 - mandates for, 3:472
- portfolio modified adjusted duration, 4:95
- portfolio monitoring, 6:67–84
 - and investor circumstances/constraints, 6:67–79
 - laws and regulations, 6:70–71
 - liquidity requirements, 6:68
 - tax circumstances, 6:70
 - time horizons, 6:69–70
 - unique circumstances, 6:71–79
 - wealth, 6:68
- and market/economic changes, 6:79–82
 - central bank policy, 6:80
 - changes in asset risk attributes, 6:79
 - market cycles, 6:79–80
 - yield curve and inflation, 6:81–82
- process, 6:82–84
 - active managers in, 6:82–84
 - nonfinancial costs of revision, 6:84
- portfolio optimization
 - after-tax, 3:341–344
 - indexed portfolios, 4:272–274
 - portfolios with currencies, 3:388–389
- portfolio performance evaluation, 6:119–201
- benchmarks, 6:133–146
 - absolute, 6:136
 - broad market indexes, 6:136–137
 - custom security-based, 6:139–140
 - defined, 6:134–135
 - factor-model-based, 6:137–138
 - for hedge funds, 6:143–146
 - manager universes, 6:136, 140–141
 - returns-based, 6:138–139
 - style indexes, 6:137
 - tests of quality, 6:142–143
 - types, 6:136–139
 - valid, 6:135–136
- components, 6:122–123
- defined, 6:120
- importance, 6:121–122
- manager continuation policies, 6:178–182
- noisiness of data, 6:177–178
- performance appraisal, 6:167–175
 - quality control charts, 6:171–175
 - risk-adjusted measures, 6:168–171
- performance attribution, 6:146–167
 - fixed-income, 6:161–167
 - macro attribution, 6:148–154
 - managers' impact on, 6:147
 - micro attribution, 6:154–161
- performance measurement, 6:123–133
 - annualized return, 6:132
 - data quality issues, 6:133
 - linked internal rate of return, 6:131–132
 - money-weighted rate of return, 6:128–131
 - time-weighted rate of return, 6:126–131
 - total rate of return, 6:126
 - without intraperiod external cash flows, 6:123–125
- practice, 6:176–182
- practice problems, 6:186–192
- solutions to problems, 6:193–201
- tax considerations in, 2:180–181
- portfolio policy, non-life insurance company, 2:517
- portfolio rebalancing, 6:84–100
 - asset allocation, 3:222–226
 - framework for, 3:223–224
 - policy on, 3:185
 - in practice, 3:311–315
 - strategic considerations in, 3:225–226
- benefits of, 6:85–88
- costs of, 6:84, 88–89
- defining, 3:311
- executive choices, 6:99–100
- in goals-based allocation, 3:304
- Perold-Sharpe analysis, 6:94–99
 - buy-and-hold strategies, 6:95–96
 - constant-mix strategies, 6:96
 - CPPI strategies, 6:97
 - linear, concave, and convex strategies, 6:97–98
 - summary of strategies, 6:98–99
- rebalancing disciplines, 6:90–94
 - calendar rebalancing, 6:90
 - other strategies, 6:93
 - percentage-of-portfolio rebalancing, 6:90–93
 - setting optimal thresholds, 6:94
 - target weights vs. allowed range, 6:93–94
- and taxes, 3:344–345
- portfolio returns, 3:381–386
 - benchmark, 6:149
 - currency risk and return, 3:381–386
 - international currency exposure, 3:381–384
 - real estate, 6:261
 - volatility of returns, 3:384–385
- portfolio risk
 - for bond portfolios, 5:219–227
 - balancing types of risks, 5:221–223
 - of government bond portfolios, 5:223–226
 - risk of bond futures, 5:221–223
 - risk of bond portfolio, 5:219–221
 - variations and problems, 5:226–227
 - marginal contribution to, 3:267
 - and rebalancing, 6:85
- portfolio theory, 2:226. *see also* behavioral portfolio theory (BPT)
- portfolio tilts, 2:181
- portfolio trades, 4:274; 6:9
- portfolio turnover, 2:116
- portfolio volatility, taxes and, 2:251
- portfolio weights, 3:385, 388
- portfolio yields, 2:503, 515
- Portugal
 - in Eurozone, 3:9n.
 - in Hague Conference, 2:304
 - tax regime, 2:231, 347
- POs. *see* principal-only strips
- position a trade (term), 6:17
- position concentration limits, 5:185
- position size, liquidity and, 4:230
- positive active positions, benchmark, 6:143
- POSIT trading system, 6:15, 52, 58
- post-trade transparency, 6:20
- potential output, 3:51
- pound, British
 - currency code, 3:375
 - currency conversion in loans, 5:370–373
 - in currency pairs, 3:376
- power-reverse dual note, 4:184
- power utility functions, 3:202
- PPF. *see* Pension Protection Fund
- PPO. *see* preferred provider organization
- PPP. *see* Purchasing Power Parity

- PPVBP. *see* partial price value of a basis point
- practice, defined, 1:106
- preadmission certification, 2:421
- preclearance procedures, 1:160
- prediction overconfidence, 2:74–75
- pre-dissemination behavior, guidelines for, 1:85
- preexisting conditions, 2:421
- preferred provider organization (PPO), 2:421
- preferred return, 5:35
- pre-investing in asset classes, 5:248–250
- premature death risk, 2:401
- premiums
- bond-yield-plus-risk-premium method, 3:38
 - on calls, 5:159
 - for caps vs. floors, 5:327n.24
 - countercyclical, 6:81
 - currency option, 3:418
 - default risk, 3:36
 - equity premium puzzle, 2:72
 - equity risk, 3:34–35, 38–40, 148
 - fixed-income, 3:36–38
 - illiquidity, 3:36
 - inflation, 3:36–38
 - life insurance, 2:302, 411–412
 - maturity, 3:37
 - net and gross, 2:411–412
 - on puts, 2:348; 5:159
 - risk
 - about, 3:37–38
 - in asset-pricing theory, 3:50
 - default, 3:36
 - equity, 3:34–35, 38–40, 148
 - financial market equilibrium models for, 3:40–48
 - fixed-income, 3:36–38
 - single-premium immediate annuities, 2:423
 - tax, 3:37
 - zero-premium collars, 2:349–350; 6:77
- prepackaged bankruptcy, 5:99, 102
- prepaid variable forwards, 2:330, 350
- prepayment risk, 4:238
- Preqin, 3:469; 5:37
- pre-retirement phase (financial stages of life), 2:393
- presentation(s)
- factual, 1:46–47
 - performance (*see* performance presentation)
- Presentation and Reporting (GIPS Section I.5)
- excerpt of, 6:216–217
 - recommendations, 6:257–259
 - requirements, 6:251–259
- present value, of human capital, 2:385–386
- present value of a basis point (PVBP). *see* price value of a basis point
- present value of distribution of cash flows methodology, 4:96
- Preservation of Confidentiality [Standard III(E)], 1:17, 101–105
- application of the standard, 1:103–105
 - compliance procedures, 1:103
 - communicating with clients, 1:103
 - guidance, 1:101–102
 - compliance with laws, 1:102
 - electronic information and security, 1:102
 - professional conduct investigations by CFA Institute, 1:102
 - status of client, 1:102
 - text of, 1:17, 101
- press releases, issuing, 1:61
- pretrade transparency, 6:20
- pre-verification procedures, 6:278
- price(s)
- ask, 6:10–11
 - bid, 3:377; 6:10
 - bond, 5:219–221
 - in bond markets, 4:21
 - decision, 6:24
 - distortion of, 1:246
 - growth-at-a-reasonable price investment style, 4:281
 - matrix, 4:95; 6:89n.11, 133
 - offer, 3:377
 - and personal trading practices, 1:69–70
 - sale, 2:362
 - stale, 6:27, 39
 - and stock splits, 2:31
 - volume-weighted average, 6:23–24, 27–28
- price currency, 3:375–377
- price discovery, 2:342; 6:16
- priced risk, 3:36
- price improvement, 6:12
- price inefficiency, 4:298–299
- price is right (assumption), 2:28–29
- price to earnings ratio (P/E)
- of common shares, 3:96–97
 - H-model for estimating, 3:132–139
 - justified estimates, 3:126–140
 - for China, 3:128–139
 - for developed economies, 3:139–140
 - and neoclassical approach to growth accounting, 3:126–127, 129–130
- price uncertainty, 6:7
- price value of a basis point (PVBP) and bond portfolio risk, 5:220
- defined, 4:130
 - and duration management, 4:138, 139, 143–144
 - in duration matching, 4:68
 - in liability-driven investing, 4:50
- price volatility
- artificial, 1:70–72
 - liquidity and, 2:176
- PricewaterhouseCoopers, 5:36
- price-weighted indexes
- advantages and disadvantages of, 3:478
 - and equity portfolio management, 4:260–262, 264
- price weighting, 3:474
- pricing
- asset
 - behavioral approach to, 2:38–39, 145
 - in behavioral finance, 2:167
 - CAPM, 2:34, 38
 - Fama and French three-factor model, 2:144
 - risk premiums in, 3:50
 - in traditional finance, 2:166
 - Black–Scholes–Merton pricing option
 - and box spreads, 5:310
 - and delta hedging, 5:335
 - formula for, 5:304
 - and model risk, 5:145
 - prices from, 5:277n.4, 291
 - volatility in, 5:152, 343
 - capital asset pricing model
 - and *ex post* SML, 6:168
 - and market behavior, 2:34, 38
 - and market indexes, 3:472, 477
 - market model vs., 6:137n.11
 - validity of, 6:171
 - evaluated, 4:95
 - expected repricing return, 3:34
 - insurance, 2:411, 513
 - matrix, 4:95
 - option-pricing theory, 5:174–176
 - policy, 2:513
- PRIMA. *see* Professional Risk Managers' International Association
- primary capital, 2:335
- primary fund vehicles, 6:259, 291
- primary residence, as illiquid holding, 2:177–178
- prime brokerage, 5:55; 6:18
- principal
- net-of-tax, 2:257–258
 - notional
 - calculating, 4:83
 - and currency vs. interest rate swaps, 5:374–375
 - and loan principal, 5:179–180
 - and using swaps to adjust duration, 5:364–365
- principal-only strips (POs), 4:137n.8
- principal trades, 6:9
- prior coverage, 1:38
- prior employer
- documents and files of, 1:110
 - in performance presentation, 1:99
- prior fund, in performance presentation, 1:99
- priority of transactions (AMC), 1:249
- Priority of Transactions [Standard VI(B)], 1:157–162
- application of the standard, 1:160–162
 - case study, 1:204
 - compliance procedures, 1:158–160
 - guidance
 - accounts with beneficial ownership, 1:158
 - avoiding potential conflicts, 1:157
 - nonpublic information standards, 1:158
 - personal trading secondary to trading for clients, 1:157
 - text of, 1:18, 157
- prior work, ownership of, 1:111
- private clients, portfolio management for. *see* portfolio management, for individual investors
- Private Equity (GIPS Section I.7), 6:266–268
- excerpt of, 6:217
 - and GIPS definition of private equity, 6:259

- private equity (private business equity), 5:27–45
 - about, 2:356–357; 5:27–29
 - benchmarks, 5:37
 - business owner profile, 2:358
 - business profile, 2:357–358
 - client objectives, 2:328
 - concentrated positions, 2:324
 - defined, 5:7
 - of distressed securities, 5:98–100
 - due diligence, 5:43–45
 - GIPS definition, 6:259, 291
 - GIPS Valuation Principles for, 6:272–273
 - global private equity asset class, 3:197
 - historical performance, 5:38
 - interpretation issues, 5:38
 - investment characteristics, 5:38–42
 - investment in publicly-traded equity vs., 5:29
 - market for, 5:29–37
 - demand for venture capital, 5:30–31
 - exit from investment, 5:31
 - size of market, 5:36–37
 - supply of venture capital, 5:31–34
 - types of private equity investments, 5:34–35
 - monetization strategies, 2:358–366
 - evaluating, 2:362–366
 - types of, 2:358–362
 - in portfolios, 5:42–43
 - types of investments, 5:34–35
- private equity funds
 - benchmarks for, 3:469
 - corporate form of, 5:35
 - distressed securities with structure similar to, 5:94
 - limited liability company form of, 5:34–35
 - portfolio management with, 5:28
- private equity market, 5:29–37
 - demand for venture capital, 5:30–31
 - exit from investment, 5:31
 - size of, 5:36–37
 - supply of venture capital, 5:31–34
 - types of private equity investments, 5:34–35
- private exchange, 6:78, 79
- Private Financing Initiative (United Kingdom), 5:15
- private foundations, 2:302, 486–488
- private investment in public entity (PIPE), 5:28
- private placements, 1:159; 5:30
- private sector, government structural policies in, 3:73
- private wealth management, 2:251–260. *see also* portfolio management, for individual investors
 - after-tax mean–variance optimization, 2:260
 - and after-tax wealth, 2:225–226
 - asset location, 2:251–254
 - and estate planning, 2:272–273
 - holding period management, 2:258–260
 - tax loss harvesting, 2:255–258
 - adding net-of-tax principal, 2:257–258
 - current tax savings, 2:255–256
 - tax deferral, 2:256–257
 - trading behavior, 2:254–255
- probabilistic retirement analysis, 2:196–199
- probabilities
 - assigning, in research, 2:135
 - conditional (*see* Bayes' formula)
 - equal probability rebalancing, 3:313; 6:93
 - from Monte Carlo simulations, 2:196–199
 - ruin, 2:285, 286
 - shortfall, 3:362, 366
 - survival, 2:280–284
 - VaR probability levels, 5:158–159
- probate, 2:273, 302
- processes, Trade Management Guidelines on, 6:49
- processing errors, 2:52
- procurement process, 1:34
- productivity, total factor, 3:70–72, 127
- professional conduct. *see also* Standards of Professional Conduct
 - Asset Manager Code of Professional Conduct, 1:239–265
 - introduction, 1:239–241
 - practice problems, 1:259–263
 - principles of conduct, 1:241
 - recommendations and guidance, 1:244–258
 - solutions to problems, 1:264–265
 - text of, 1:242–244
 - CFA Professional Conduct Program, 1:9–10
- professional conduct investigations, 1:102
- Professional Conduct Program (PCP), 1:9–10, 23
 - confidentiality of investigations, 1:102
 - misuse of, 1:54
- professional designations, 1:176
- Professional Investor, 3:325
- professionalism, 1:54
- Professionalism [Standard of Professional Conduct I], 1:21–56
 - Independence and Objectivity [Standard I(B)], 1:30–42
 - application of the standard, 1:36–42
 - compliance procedures, 1:35–36
 - guidance, 1:30–35
 - text of, 1:16, 30
 - Knowledge of the Law [Standard I(A)], 1:21–29
 - application of the standard, 1:27–29
 - case study, 1:203–204
 - compliance procedures, 1:26–27
 - guidance, 1:21–25
 - text of, 1:16, 21
 - Misconduct [Standard I(D)], 1:16, 53–56
 - application of the standard, 1:54–56
 - compliance procedures, 1:54
 - guidance, 1:53–54
 - text of, 1:16, 53
 - Misrepresentation [Standard I(C)], 1:16, 43–53
 - application of the standard, 1:48–53
 - case study, 1:211–213
- compliance procedures, 1:46–47
- guidance, 1:43–46
- text of, 1:16, 43
- text of, 1:16
- professionally designated, certified, or licensed commercial property valuer/appraiser, 6:260, 291
- Professional Risk Managers' International Association (PRIMA), 5:182
- profiling of individual investors. *see* psychological profiling; situational profiling
- profit
 - bear spread, 5:296–298
 - box spread, 5:311
 - bull spread, 5:293–295
 - butterfly spread, 5:300–302
 - call options, 5:279–280
 - collars, 5:305, 306
 - covered calls, 5:286–288
 - protective puts, 5:290, 291
 - put options, 5:282–284
 - realized, 6:25
 - straddles, 5:308, 309
 - unrealized, 6:23, 25
- profitability, of non-insurance companies, 2:513–514
- profit-sharing plans, 2:463
- program trades, 4:274
- progressive tax rate structures, 2:227, 229–231
 - estate tax in, 2:278
 - and tax reduction with trusts, 2:301
- projected benefit obligation (PBO), 2:465; 4:79–81
- promotion, company, 1:69
- property
 - community property regimes, 2:275–276
 - direct loss of, 2:402
 - indirect loss of, 2:402–403
 - intellectual, 5:44
 - separate property regimes, 2:275
 - Property Council/IPD Australia All Property Index, 5:16
 - property insurance, 2:418–420
 - automobile insurance, 2:420
 - in case study, 2:434
 - homeowner's insurance, 2:418–420
 - and integrated asset–liability approach, 3:285
 - recommendations for, in case study, 2:439–440
 - property risk, 2:402–403
 - property-specific risk, 2:327
 - property taxes, 2:179
 - proprietary trading procedures, 1:63
 - prospective clients. *see also* Communication with Clients and Prospective Clients [Standard V(B)]
 - GIPS definition, 6:291
 - GIPS provisions for, 6:213
 - prospect theory, 2:24–28
 - defined, 2:18
 - and loss-aversion bias, 2:70, 166–167
 - and utility theory, 2:20, 22

- protective puts
 defined, 3:418
 with OTM options, 3:422
 in risk management strategies,
 5:290–292
 “Protocol for Broker Recruiting,” 1:107
 proxy hedging, 3:428–430
 proxy voting policies, 1:76–78
 prudence, 6:48. *see also* Loyalty, Prudence,
 and Care [Standard III(A)]
 prudence trap, 3:21–22
 Prudential, 2:504, 516
 prudent investor rule, 2:507
 prudent judgment, 1:245–246
 Prudent Person Rule, 2:190
 psychographic modeling of investors,
 2:111–116
 behavioral alpha process, 2:111–116
 Active Accumulators, 2:116
 classifying as behavioral investor
 type, 2:113–116
 Friendly Followers, 2:115
 Independent Individualists,
 2:115–116
 Passive Preservers, 2:114–115
 plotting on risk tolerance and active/
 passive scale, 2:112
 testing for behavioral biases,
 2:112–113
 testing for risk tolerance and active/
 passive traits, 2:111–112
 bottom up approach, 2:110
 psychological considerations
 with concentrated positions,
 2:331–334
 of risk management, 5:193
 psychological profiling of individual
 investors, 2:165–171
 behavioral finance, 2:166–167
 personality typing, 2:167–171
 traditional finance, 2:165–166
 psychological traps, in capital market
 expectations, 3:21–22
 public companies, independence and
 objectivity of, 1:33
 public dissemination, achieving, 1:60
 public equity (publicly-traded equity)
 global, 3:197
 investment in private equity vs., 5:29
 public good, 3:73n.63
 public limited company (PLC), 5:35
 public market equivalents, 6:267, 291
 public sector, government structural
 policies in, 3:73
 pump and dump strategy, 1:72
 pump-priming strategy, 1:71
 purchasing managers index (PMI), 3:62
 Purchasing Power Parity (PPP), 3:101
 pure indexing
 defined, 4:93
 and portfolio management, 4:16, 17
 Pure Sector Allocation return, 6:158
 puttable bonds, 4:50, 134
 put–call parity, 5:175–176
 put options (puts)
 in equity portfolios
 combinations of calls and, 5:304–312
 long/short positions, 5:282–286
 protective, 5:290–292
 hedging with, 2:348–349
 with lending, 5:318–323
 premiums, 5:159
 protective, 3:418, 422; 5:290–292
 put payoffs, 5:313, 318–321
 put spreads, 2:348, 350; 3:422–423
 PVBP. *see* price value of a basis point
- Q**
 Qatar, 3:76
 QE. *see* quantitative easing
 qualification summary, 1:47
 Qualified Intermediaries (QIs), 2:311
 qualified purchasers, 3:325
 quality, tests of, 6:142–143
 quality control charts, 6:171–175
 assumptions underlying, 6:172
 confidence bands on, 6:173
 defined, 6:171
 interpreting, 6:174–175
 quality effect, 6:165
 QuantEX™, 6:42
*Quantitative Analysis of Investor
 Behavior* (DALBAR), 2:59
 quantitative easing (QE), 3:56–57, 65, 66
 quantitatively oriented models, 1:134–135
 quantitatively oriented research, 1:128
 quantitatively oriented techniques, 1:129
 quasi-endowments, 2:490
 quasi-liabilities, 3:273
 quotations, attributing, 1:47
 quoted depth, 6:19
 quote-driven (dealer) markets, 6:10–15
- R**
 rand, South African, 3:375, 439
 random walks, 3:364
 range accrual notes, 4:184
 range forwards. *see* collars
 range of experience, availability bias and,
 2:68
 RAROC. *see* risk-adjusted return on
 capital
 ratchet floaters, 4:184
 rate of return
 annualized return, 6:132
 with external cash flows at beginning/
 end of evaluation period, 6:124–125
 holding period, 4:58
 internal
 linked, 6:131–132
 modified, 6:225–227
 money-weighted rate of return,
 6:128–131
 of private equity, 5:39
 for real estate, 6:262–265
 since inception, 6:262–265, 267–268,
 292
 money-weighted, 6:128–131
 real, 4:256–257
 subperiod, 6:127–128
 time-weighted
 about, 6:126–128
 GIPS definition, 6:292
 and linked internal rate of return,
 6:131, 132
 MWR vs., 6:129–131
 as requirement of GIPS standards,
 6:224
 total, 6:126
 without external cash flows, 6:124
 rational belief equilibrium, 3:23n.18
 rational economic man (REM), 2:11–12,
 15
 rationality
 bounded, 2:15, 20, 22–24
 perfect, 2:12
 in utility theory, 2:9
 rational portfolios, 2:36
 ratio spreads, delta hedges of,
 5:339n.32
 RBC requirements. *see* risk-based capital
 requirements
 real, Brazilian, 3:375, 440–441
 real assets
 as asset class, 3:198
 inflation/deflation effects for, 3:59
 real bond yields, 3:91, 93
 real estate, 5:13–27
 about, 2:366
 benchmarks, 5:15–17
 client objectives with, 2:328
 concentrated positions in, 2:324,
 366–369
 defined, 5:7
 direct, 2:388; 5:21
 due diligence, 5:27
 forecasts of returns, 3:97
 GIPS Valuation Principles for, 6:272
 historical performance, 5:17–18
 inflation/deflation effects for, 3:59
 interpretation issues, 5:19
 investment characteristics of, 5:20–21
 and liquidity, 3:266
 market for, 5:13–15
 monetization strategies, 2:367–369
 as non-publicly traded marketable
 asset, 2:388
 in portfolios, 5:21–27
 diversification within real estate,
 5:23–25
 real estate as diversifier, 5:22–23
 returns on real estate, 6:261
 for strategic asset allocation, 5:26–27
 worldwide investment in real estate,
 5:25
 types of investments, 5:14–15
 wealth taxes on, 2:238
 Real Estate (GIPS Section I.6), 6:217,
 259–265
 real estate investment trusts (REITs),
 5:14–15; 6:259
 real estate market, 5:13–15
 real estate securities, 6:259
 real exchange rate, 3:399–400
 real gross domestic product, 3:32–33
 real interest rate
 and inflation premium, 3:37
 reducing risk factor exposure to, 3:201
 risk-free, 3:36, 37
 volatility of, 4:9
 realization multiples, 6:265, 291
 realized profit/loss, 6:25
 real options, 5:52
 REAL.pac/IPD Canada Quarterly
 Property Index, 5:16
 real rate of returns, equities, 4:256–257
 real yield, 3:91, 93; 6:82

- reasonable basis. *see also* Diligence and Reasonable Basis [Standard V(A)]
 defined, 1:127
 developing, 1:131
- reasonable care, 1:245–246
- rebalancing
 of indexes
 equity indexes, 4:291–293
 manager-based hedge fund indexes, 5:62
 market indexes, 3:476
 of portfolios (*see* portfolio rebalancing)
- rebalancing policy, 3:185
- rebalancing range, 3:224
- rebalancing return, 3:312n.44
- re-basing, of indexes, 3:14
- rebate rate, 4:31
- recallability trap, 3:22
- recapitalization, 2:359; 5:33
- receipts
 current account, 3:79
 foreign cash, 5:252, 375–377
- receiver swaptions, 4:84; 5:398–403
- recency effect, 2:140; 3:364
- recession phase (business cycle), 3:54
 defined, 3:51
 earnings in, 3:94
 and market expectations, 3:59–60
 yield curve as predictor of, 3:54
- recommendation objectivity, 1:40–41
- recommendations. *see also* Investment Analysis, Recommendations, and Actions [Standard of Professional Conduct V]
 fair dealing in, 1:82–83
 GIPS, 6:214, 262, 291
 in investment policy statements, 1:148
 as material nonpublic information, 1:65–66
 number of people privy to, 1:84
 reasonable basis for, 1:127
- reconstitution, of market indexes, 3:476
- record keeping
 in AMC, 1:252
 supervision of, 1:123
 Trade Management Guidelines on, 6:49
- record retention, 1:148
- Record Retention [Standard V(C)], 1:146–148
 application of the standard, 1:148
 compliance procedures, 1:147
 guidance, 1:146–147
 local requirements, 1:147
 new media records, 1:147
 records as property of firm, 1:147
 text of, 1:18, 146
- records
 maintenance of, 1:62
 as property of firm, 1:147, 148
- recourse mortgages, 2:388
- recourse with respect to a debt, 2:341n.a
- reference dependence, 2:27
- references, employee, 1:54
- Reference to CFA Institute, Designation and Program [Standard VII(B)], 1:19, 170–176
 application of the standard, 1:174–176
 compliance procedures, 1:174
 guidance, 1:170–174
 CFA designation, 1:171
 CFA Institute membership, 1:171
 referring to candidacy in CFA program, 1:171–172
 use of CFA marks, 1:172–174
 text of, 1:19
- referral arrangements
 disclosure of, 1:162–164
 informing firms of, 1:163
 interdepartmental, 1:163
- Referral fees [Standard VI(C)], 1:162–164
 application of the standard, 1:162–164
 compliance procedures, 1:162
 guidance, 1:162
 text of, 1:18, 162
- refinancing, 2:369
- reflective of current investment opinions (term), 3:465n.4; 6:135
- Regional Investment Performance Subcommittees (RIPS), 6:212
- Registered Retirement Savings Plans (RRSPs), 2:246
- regression analysis
 and butterfly strategies, 4:161n.18
 identifying regime changes with, 3:17–18
 in industry sector allocation, 4:220
- regret, hindsight bias and, 2:141
- regret-aversion bias, 2:79–80, 91
 consequences of, 2:80
 detection and methods of overcoming, 2:80
 diagnostic questions, 2:87, 89
 and status quo bias, 2:77
- Regulated Investment Company (RIC)
 diversification, 4:273
- regulations
 benchmarks and compliance with, 3:468
 changes in, 6:70–71
 and concentrated positions, 2:330
 and ethics, 1:13
 and governing laws, 1:203–204
 indexed portfolio, 4:273
 religious tenets as basis for, 1:28–29
- regulatory capital requirements, 5:192–193
- regulatory constraints of individual investors, 2:182–185. *see also* external constraints
 and asset allocation, 3:334
 family foundation, 2:184–185
 jurisdiction for taxation, 2:185
 personal trust, 2:183–184
 in sample IPSs, 2:187
 for small asset owners, 3:325
- regulatory factors for institutional investors
 banks, 2:523
 defined-benefit plans, 2:472–473
 endowments, 2:495
 foundations, 2:488
 life insurance companies, 2:506–508
 non-life insurance companies, 2:517
- regulatory risk, 5:146–147
- rehabilitation clause, of disability income insurance, 2:418
- reinvestment risk, 2:502
- REITs. *see* real estate investment trusts
- related parties, gifts and entertainment from, 1:38–39
- relationships
 in AMC, 1:245
 causality, 3:21
 and conflicts of interest, 1:152, 156
 custodial, 1:32
 fund manager, 1:32, 42
 independent contractor, 1:108–109
 investment banking, 1:32–33
- relative economic strength forecasting approach, 3:101, 103
- relative strength indicators, 4:280
- relative value
 after-tax, 2:290–291, 294
 of CDOs, 4:239
 and ESG practices, 4:225
 in international credit portfolios, 4:233–235
 of taxable gifts, 2:291, 294
 of tax-free gift, 2:290–291
 and Z-spread, 4:203
- relative-value analysis, 4:207–214
- relative value hedge fund strategies, 5:67
- relative value models for equity market, 3:147–162
 asset-based models, 3:157–161
 earnings-based models, 3:147–157
 Cyclically Adjusted P/E Ratio, 3:153–157
 Fed model, 3:147–150
 Yardeni model, 3:150–153
- religious tenets, laws and regulations based on, 1:28–29
- REM. *see* rational economic man
- remaindermen, 2:184–185; 6:69
- reorganization plans, bankruptcy, 5:101–102
- replacement costs, in homeowner's insurance, 2:418–419
- repo rate, defined, 4:30
- reporting. *see also* Presentation and Reporting (GIPS Section I.5)
 framework for, 3:184, 185
 governance, 3:185
 incident-reporting procedures, 1:109
 management, 3:185
 of material nonpublic information, 1:62
 performance, 1:44–45
 of potential unethical actions, 1:29
 requirements for investment personnel, 1:159–160
- reports
 facts vs. opinions in, 1:141
 flash, 1:85
 material nonpublic information in, 1:60
 presentation of, 1:140
 verification, 6:275–277, 293
- repos. *see* repurchase agreements
- representativeness bias, 2:56–60
 of analysts, 2:126, 128, 134
 and asset allocation, 3:364–365
 consequences of, 2:58
 detection and methods of overcoming, 2:58–60
 diagnostic questions, 2:87
 and halo effect, 2:144
 of investment managers, 2:134

- repurchase agreements (repos), 4:29–30
- repurchase yield, 3:33
- requested favors, 1:155
- request for proposal (RFP), 1:112
- requirements, GIPS, 6:214, 262, 291
- resampled mean–variance optimization, 3:260–261
- rescaling, of appraisal data, 3:16
- research
 - alpha and beta, 3:8
 - bottom-up approaches, 4:322, 323
 - buy-side, 4:323
 - diligence, 1:129
 - facts vs. opinions in reports, 1:212
 - forecasting, 2:133–136
 - group, 1:129, 132
 - issuer-paid, 1:34–35, 48
 - of others, using, 1:211
 - and plagiarism, 1:45–46
 - quantitatively oriented, 1:128
 - reasonable basis for, 1:131, 211–212
 - and record retention, 1:148
 - secondary, 1:127–128
 - sell-side, 4:298–299, 323
 - supervision of, 1:122–123, 125–126
 - systematic approach to, 2:135
 - third-party, 1:127–128, 132
 - top-down, 4:316, 322, 323
- research independence, 1:37–38, 40
- research reports, material nonpublic information in, 1:60
- reserve(s)
 - emergency, 2:176
 - life insurance policy, 2:412–413
 - policyholder, 2:503n.23
 - safety, 2:283, 285
 - valuation, 2:501n.21
- reserve order, 6:8–9
- residence, as illiquid holding, 2:177–178
- residence jurisdiction, 2:305
- residence–residence conflicts, 2:307
- residence–source conflicts, 2:307–310
 - and double taxation treaties, 2:308–310
 - relief from, 2:307–308
- resident, non-domiciliaries (RNDs), 2:306
- residential mortgage-backed securities (RMBSs), 4:237, 238
- residential property boom (2005–2007), 2:142
- residents, taxation of, 2:305–306
- residual disability benefit, 2:417
- residuals, 3:71
- residual value, 6:265, 291
- residue, 6:69
- resilience, market, 6:19
- resistance levels, 3:401
- resonance, availability bias and, 2:68
- Responsibilities of CFA Members and Candidates [Standard of Professional Conduct VII]
 - case study, 1:206
 - Conduct as Participants in CFA Institute Programs [Standard VII(A)], 1:19, 165–169
 - application of the standard, 1:167–169
 - eleventh edition revision, 1:8
 - guidance, 1:165–167
 - text of, 1:19, 165
- Reference to CFA Institute, Designation and Program [Standard VII(B)], 1:19, 170–176
 - application of the standard, 1:174–176
 - compliance procedures, 1:174
 - guidance, 1:170–174
 - text of, 1:19, 170
- Responsibilities of Supervisors [Standard IV(C)], 1:118–126
 - application of the standard, 1:122–126
 - case study, 1:204
 - compliance procedures, 1:120–122
 - adequate, 1:120–121
 - code of ethics or compliance procedures, 1:120
 - establishing incentive structures, 1:122
 - implementation of compliance education and training, 1:121
 - eleventh edition revision, 1:7–8
 - guidance, 1:118–120
 - detection in supervision, 1:119–120
 - system for supervision, 1:119
 - text of, 1:18, 118
- responsibility(-ies)
 - accepting, 1:124
 - allocation of, 3:182–184
 - of employers, 1:106
 - in investment policy statement, 3:184
- responsiveness, bond, 5:221
- restricted lists, creating, 1:36
- restricted periods, 1:159
- results
 - overemphasis of, 1:53
 - simulated, 1:99–100
- retired CFA Institute membership status, 1:175
- retired-lives portion of pension liability, 2:465, 469, 471
- retirement accounts
 - IRAs, 2:246
 - Monte Carlo simulation for, 3:250–252
 - taxation of, 3:341
 - tax-deferred, 2:232
- retirement income efficient frontier, 2:430–431
- retirement planning
 - longevity risk in, 2:402
 - Monte Carlo simulation in, 2:196–199
 - primary residence in, 2:178
- Retirement Savings Accounts (RSAs), 2:159, 181
- retrievability, availability bias and, 2:67–68
- return(s)
 - accrual equivalent, 2:243–245
 - active
 - and equity portfolio management approach, 4:258
 - and information ratio, 6:170–171
 - relative to one-factor model, 6:156
 - and total return mandates, 4:15–16
 - and active management/investment style, 6:134–135
 - after-tax, 2:241; 6:280–283
 - Allocation/Selection Interaction, 6:159
 - annualized, 6:132
 - capital, 6:260, 287
 - of company stock, 2:123
 - component, 6:260–261
 - composite, 6:232–235, 258
 - compounded, 2:287
 - concurrent, 2:198
 - constant returns to scale, 3:127
 - differential, 6:146
 - domestic-currency, 3:382–385
 - drivers of, 3:125–126
 - excess
 - in credit portfolio, 4:205–206
 - defined, 3:467
 - to nondiversifiable risk, 6:168
 - in relative value analysis, 4:208–211
 - in top-down approach to credit strategy, 4:219
 - expected
 - in asset-only allocation, 3:240
 - decomposition of, 4:23–27, 178
 - estimates of, 3:11–12
 - and framing bias, 3:365
 - in goals-based allocation, 3:291
 - Gordon growth model, 3:31–33
 - Grinold–Kroner approach, 3:34–35
 - risk premium approach, 3:36
 - and taxation, 3:341, 343–344
 - unconditional, 3:19–20
- fixed-income, 4:23–26; 6:164–165
- forecasting, 3:89–104
 - for cash and equivalents, 3:89–90
 - for common shares, 3:93–97
 - for currencies, 3:99–100
 - for defaultable debt, 3:92
 - for emerging market bonds, 3:92
 - and exchange rates, 3:100–103
 - and historical capital market expectations, 3:97–99
 - for inflation-indexed bonds, 3:92–93
 - for nominal default-free bonds, 3:91–92
 - for real estate, 3:97
- foreign-currency, 3:382
- geometrical linking of, 6:224–225
- gross-of-fees, 6:250, 261, 289
- income, 3:34; 6:260, 289
- low-return environments, 5:9
- macro attribution, 6:149–150
- from market models, 6:138
- mean, 2:287; 3:24, 26
- minimum acceptable, 5:191
- misfit, 6:149n.19, 153
- and monetary policy, 6:80
- net-of-fees, 6:250, 261
- and performance evaluations of hedge funds, 5:79
- portfolio, 3:381–386
 - benchmark portfolio returns, 6:149
 - currency risk and return, 3:381–386
 - international currency exposure, 3:381–384
 - real estate, 6:261
 - volatility of returns, 3:384–385
- preferred, 5:35
- Pure Sector Allocation, 6:158
- rebalancing, 3:312n.44
- risk-adjusted return on capital, 5:190
- roll, 3:414–416
- rolldown, 4:23–24

- rolling, 5:79
- time-weighted total, 6:223–226
- total, 4:15–19
 - with active management, 4:17
 - endowment spending based on, 2:489–491
 - of fixed-income securities, 6:164–165
 - with indexing, 4:16–17
 - for insurance companies, 2:504
 - investor requirements based on, 2:172–173
 - for non-life insurance companies, 2:514
 - time-weighted, 6:223–226
- Within-Sector Selection, 6:158–159
- return objectives
 - asset allocation based on, 2:192–195
 - for individual investors, 2:172–174
 - for institutional investors
 - banks, 2:523
 - defined-benefit plans, 2:468–470
 - endowments, 2:492–494
 - foundations, 2:486
 - life insurance companies, 2:503–505
 - non-life insurance companies, 2:513–515
 - in sample IPSs, 2:186, 189
- return over maximum drawdown (RoMAD), 5:190
- return rates. *see* rate of return
- return requirements
 - for defined-benefit pension plan, 2:469
 - in IPSs, 6:72, 75
- returns-based benchmarks, 3:470; 6:138–139
- returns-based style analysis
 - example, 4:293, 294
 - holdings-based style analysis vs., 4:291
 - identifying investment style with, 4:282–288
- returns-based taxes, 2:232–237
- return-seeking portfolio approach, 3:282–285
 - compared to other approaches, 3:286–287
 - defined, 3:276
- Reuters, 3:105, 411
- Reuters Jefferies/Commodity Research Bureau (RJ/CRB) Index, 5:47, 51
- revenue, impact and, 6:147
- reverse mortgages, 2:178
- reverse optimization, 3:254–257
- reverse repos, 4:30
- reviews. *see also* account reviews
 - of compliance procedures, 1:26
 - for independence/objectivity, 1:36
 - manager, 6:179–181
 - and overconfidence bias, 2:75–76
 - of private equity, 5:44–45
- revocable trusts, 2:183, 300
- reward-to-variability. *see* Sharpe ratio
- reward-to-volatility, 6:168
- RFP. *see* request for proposal
- RIC diversification. *see* Regulated Investment Company diversification
- Richards, Thomas M., 3:465, 468, 480
- rider(s)
 - cost of living rider, 2:418
 - guaranteed minimum withdrawal benefit for life rider, 2:424
 - on insurance policies, 2:407
 - option to purchase additional insurance rider, 2:418
- riding the yield curve strategy, 4:133
- rights
 - allocation of, 3:182–184
 - of spouses to inheritance, 2:275
- RIPS. *see* Regional Investment Performance Subcommittees
- risk(s). *see also specific types, e.g.:*
 - earnings risk
 - ability to take risk, 2:174–175
 - and asset allocation, 3:194–195, 239
 - attitudes toward, 2:17–19
 - avoiding, 2:80
 - of bond futures, 5:221–223
 - with bond indexing, 4:95–96
 - changes in asset risk attributes, 6:79
 - of delta, 5:342–343
 - de-risking, 3:349
 - of dual currency bonds, 5:377–380
 - efficient allocation of, 3:349
 - of equities, 5:228–230
 - of equity portfolios, 5:230–232
 - evaluating, in risk management strategies, 2:391–392
 - of foreign currency payments, 5:252–254
 - of foreign currency receipts, 5:252
 - of foreign-market asset portfolio, 5:254–258
 - and framing bias, 3:365
 - identifying, 5:140–151
 - accounting risk, 5:148–149
 - analysis of risk exposures, 5:141–142
 - credit risk, 5:142–143
 - ESG, performance netting, and settlement netting risk, 5:150–151
 - legal/contract risk, 5:147–148
 - liquidity risk, 5:143–144
 - market risk, 5:142
 - model risk, 5:145
 - operational risk, 5:144–145
 - regulatory risk, 5:146–147
 - in risk management strategies, 2:391
 - settlement risk, 5:146
 - sovereign and political risks, 5:149–150
 - tax risk, 5:148
 - of investment analysis, 1:139–140, 145–146
 - with liability-driven investing, 4:88–92
 - measuring, 5:151–181
 - credit risk, 5:173–180
 - liquidity risk, 5:180
 - market risk, 5:151–152
 - nonfinancial risks, 5:180–181
 - stress testing, 5:171–172
 - value at risk, 5:153–171
 - modeling of, 3:195–201
 - multifactor models for, 3:200; 4:273
 - in negative interest rate environment, 3:66
 - non-insurance risk transfers, 2:432
 - and portfolio return, 3:381–386
 - of private equity investments, 5:39
 - and rebalancing portfolios, 3:223
 - risk characteristics of benchmarks, 6:143
 - of structured notes, 5:366–370
 - inverse floaters, 5:368–370
 - leveraged floating-rate notes, 5:366–368
 - time diversification of, 3:334
 - and trading costs, 6:30
 - willingness to take risk, 2:175
- risk-adjusted performance measures, 6:168–171
 - criticisms, 6:171
 - ex post* alpha, 6:168–169
 - information ratio, 6:170–171
 - M^2 , 6:168–170
 - Sharpe ratio, 6:169
 - Treynor, 6:169
- risk-adjusted return on capital (RAROC), 5:190
- risk-arbitrage trading, 1:63
- risk aversion
 - for downside risk, 2:145
 - and source of wealth, 2:162
 - in traditional finance, 2:13–14, 165
- risk aversion coefficient
 - in asset allocation, 3:238
 - in efficient frontier, 3:242
- estimating, 3:239
- risk avoidance, 2:391, 432
- risk-based capital (RBC) requirements, 2:501, 517, 523
- risk-based margin regimes, 2:330
- risk budgeting
 - in asset allocation implementation, 3:221
 - asset-only allocation, 3:267–269
 - and risk management, 5:183–185
 - in risk parity-based allocation, 3:310
- risk-controlled active investing, 4:303–305. *see also* semiactive equity investing
- risk exposure(s), 2:400–405
 - analysis of, 5:141–142
 - benchmarks in identification/evaluation of, 3:467
 - credit, 5:178–179, 186
- currency
 - international, 3:381–384
 - and portfolio returns, 3:381–386
 - strategic decisions about, 3:389–392
 - with top-down approach, 4:222–223
- defined, 5:135n.1
- earnings, 2:400–401
- economic, 5:251
- health, 2:403–404
- insider, 5:387–389
- interest rate, 4:221–223
- and leverage in fixed-income portfolio management, 4:31
- liability, 2:403
- longevity, 2:402
- monitoring, in risk management strategies, 2:392
- premature death, 2:401
- property, 2:402–403
- and pure indexing, 4:16
- sector, 6:82–83
- security, 6:83
- style, 6:82–83
- transaction, 5:251
- translation, 5:251

- risk factor approach, 3:210–211
- risk factor limits, fund management company, 5:185
- risk-free assets, 3:246–247
- Risk-Free Asset strategy, 6:151
- risk-free interest rates
 - for corporate bond portfolios, 4:195, 196
 - nominal, 3:36
 - real, 3:36, 37
- risk management, 5:133–209
 - about, 5:134–135
 - of currency risk (*see* currency management)
 - disclosure of, 1:258
 - establishing processes for, 1:253–254
 - identifying risk, 5:140–151
 - accounting risk, 5:148–149
 - analysis of risk exposures, 5:141–142
 - credit risk, 5:142–143
 - ESG, performance netting, and settlement netting risk, 5:150–151
 - legal/contract risk, 5:147–148
 - liquidity risk, 5:143–144
 - market risk, 5:142
 - model risk, 5:145
 - operational risk, 5:144–145
 - regulatory risk, 5:146–147
 - settlement risk, 5:146
 - sovereign and political risks, 5:149–150
 - tax risk, 5:148
 - for individual investors, 2:381–458
 - annuities, 2:422–431
 - determining optimal strategy, 2:431–433
 - financial capital, 2:386–390
 - framework for, 2:391–405
 - human capital, 2:383–386
 - implementation of, 2:431–446
 - insurances, 2:405–422
 - life-cycle finance, 2:382
 - net wealth, 2:390
 - practice problems, 2:449–454
 - solutions to problems, 2:455–458
 - strategy for, 2:391–392
 - in investment policy statement, 3:184
 - managing risk, 5:182–193
 - in capital allocation, 5:191–193
 - credit risk, 5:186–189
 - market risk, 5:182–185
 - and performance evaluation, 5:189–191
 - psychological and behavioral considerations of, 5:193
 - measuring risk, 5:151–181
 - credit risk, 5:173–180
 - liquidity risk, 5:180
 - market risk, 5:151–152
 - nonfinancial risks, 5:180–181
 - stress testing, 5:171–172
 - value at risk, 5:153–171
 - portfolio management for defined-benefit plans, 2:477
 - practice problems, 5:196–203
 - as process, 5:135–138
 - risk governance, 5:138–140
 - solutions to problems, 5:204–209
- Risk Management, Compliance, and Support (AMC Part D), 1:243, 250–254
- risk management applications of forward and futures strategies, 5:213–274
 - about, 5:213–215
 - asset allocation with futures, 5:241–250
 - adjusting asset allocation, 5:241–248
 - pre-investing in asset classes, 5:248–250
 - equity market risk, 5:227–241
 - cash from equity, 5:237–241
 - equity from cash, 5:232–237
 - risk of equities, 5:228–230
 - risk of equity portfolios, 5:230–232
 - foreign currency risk, 5:250–258
 - risk of foreign currency payments, 5:252–254
 - risk of foreign currency receipts, 5:252
 - risk of foreign-market asset portfolio, 5:254–258
 - futures vs. forwards, 5:258–260
 - interest rate risk, 5:215–227
 - risk for bond portfolios, 5:219–227
 - risk for loans, 5:215–219
 - practice problems, 5:264–268
 - solutions to problems, 5:269–274
- risk management applications of option strategies, 5:275–356
 - about, 5:275–277
 - for equity portfolios, 5:277–312
 - combinations of calls and puts, 5:304–312
 - money spreads, 5:293–303
 - standard long and short positions, 5:279–286
 - and the underlying, 5:286–292
 - interest rate option strategies, 5:312–333
 - calls with borrowing, 5:313–318
 - caps with floating-rate loans, 5:323–327
 - collars with floating-rate loan, 5:329–333
 - floor with floating-rate loan, 5:327–329
 - puts with lending, 5:318–323
 - option portfolio risk management strategies, 5:333–343
 - delta hedging over time, 5:335–342
 - gamma and risk of delta, 5:342–343
 - interest rate options and options on futures, 5:344
 - vega and volatility risk, 5:343
 - practice problems, 5:348–351
 - solutions to problems, 5:352–356
- risk management applications of swap strategies, 5:357–421
 - about, 5:358–359
 - equity market risk, 5:380–389
 - and allocation of stocks and bonds, 5:384–387
 - diversifying concentrated portfolios, 5:380–382
 - insider exposure, 5:387–389
 - international diversification, 5:382–384
 - exchange rate risk, 5:370–380
 - and currency conversions, 5:370–377
 - and foreign cash receipts, 5:375–377
 - and loans, 5:370–375
 - risk of dual currency bonds, 5:377–380
 - interest rate risk, 5:359–370
 - converting floating- and fixed-rate loans, 5:359–363
 - duration of fixed-income portfolios, 5:363–366
 - risk of structured notes, 5:366–370
 - practice problems, 5:407–415
 - solutions to problems, 5:416–421
 - swaptions, 5:389–404
 - and forward swaps, 5:404
 - for future borrowing, 5:390–394
 - interest rate swaptions, 5:390–397
 - synthetically removing/adding call features, 5:398–403
 - terminating swaps with swaptions, 5:394–397
- RiskMetrics Group, 3:27; 5:153n.27, 182
- risk neutrality, 2:13
- risk objectives
 - asset allocation based on, 2:193–195
 - for individual investors, 2:174–175
 - for institutional investors
 - banks, 2:522
 - defined-benefit plans, 2:465–468
 - endowments, 2:491–492
 - foundations, 2:486
 - life insurance companies, 2:501–503
 - non-life insurance companies, 2:512–513
- risk parity-based allocation, 3:309–311
- risk premium approach to capital market expectations, 3:11, 36–40
 - equity risk premiums, 3:38–40, 148
 - fixed-income premiums, 3:36–38
 - general expression, 3:36
- risk premiums
 - about, 3:37–38
 - in asset-pricing theory, 3:50
 - default, 3:36
 - equity
 - for capital market expectations, 3:38–40
 - and Fed model, 3:148
 - Grinold-Kroner model for forecasting, 3:34–35
 - financial market equilibrium models for, 3:40–48
 - fixed-income, 3:36–38
- risk profile
 - investment suitability for, 1:94, 96
 - understanding, 1:91
- risk reduction
 - and asset allocation, 2:443–446
 - in risk management strategies, 2:391
- risk retention, 2:392, 432
- risk reversals, 3:422. *see also* collars
- risk-reward tradeoff, 6:79
- risk-seeking, 2:13
- risk tolerance
 - in asset-only allocation, 3:205–206
 - of defined-benefit pension plans, 2:466
 - of endowments, 2:491–492
 - in ERM, 5:183

- and goals-based investing, 2:81–82
 - and investment objectives, 3:182
 - in investment policy statements, 2:186, 189–190; 6:72, 75
 - misidentification of, 2:67
 - “120 minus your age” rule for, 3:306–307
 - plotting, in behavioral alpha process, 2:112
 - and return requirements, 2:172–173
 - testing for, in behavioral alpha process, 2:111–112
 - and willingness to take risk, 2:175
 - risk tolerance questionnaires, 2:119–120, 168
 - risk transfer, 2:391–392, 432
 - risky-asset holdings, 3:246
 - RJ/CRB Index. *see* Reuters Jefferies/Commodity Research Bureau Index
 - RMBs. *see* residential mortgage-backed securities
 - RNDs. *see* resident, non-domiciliaries
 - Robinson, Thomas R., 2:337n.5
 - rogue traders, 5:145
 - roll down, 4:133
 - rolldown return, 4:23–24
 - rolling return (RR), 5:79
 - rolling three-year average spending rule, 2:491
 - roll return, 3:414–416
 - roll yield, 3:414–416
 - RoMAD. *see* return over maximum drawdown
 - Romania, 2:304
 - Roman law, 2:274
 - Rosenberg, Michael R., 3:399n.15
 - Roth IRAs, 2:246
 - Royal Dutch Shell PLC, 4:94
 - RR. *see* rolling return
 - RRSPs. *see* Registered Retirement Savings Plans
 - RSAs. *see* Retirement Savings Accounts
 - rupee, Russian, 3:375, 440
 - ruin probabilities, 2:285, 286
 - rule-based margin regimes, 2:330
 - rules-based trading, 6:42–43
 - Rules of Procedure. *see* Bylaws and Rules of Procedure for Proceedings Related to Professional Conduct
 - rumors, addressing, 1:110–111
 - rupee, Indian, 3:375, 440
 - Russell 1000 Growth Index, 4:284–286
 - Russell 1000 Index, 4:269, 329
 - Russell 1000 Value Index, 4:284–286; 6:187, 195–196
 - Russell 2000 Growth Index, 4:284–286
 - Russell 2000 Index
 - as benchmark, 6:188
 - composition and characteristics, 4:269
 - indexed portfolios, 4:272
 - and liquidity, 4:267
 - portfolio construction with, 4:274
 - Russell 2000 Value Index, 4:284–286
 - Russell 2500 Index, 3:44
 - Russell 3000 Index
 - as benchmark, 4:329; 6:187–188
 - as broad market index, 6:136
 - characteristics, 4:268
 - equity swap using, 5:408
 - and international diversification, 5:383
 - Russell Investments
 - broad market indexes by, 3:471
 - capitalization weighting of indexes, 3:473
 - characteristics of indexes by, 4:292
 - float-adjusted indexes by, 3:474
 - Russell Large Value Index, 6:137
 - Russell Midcap Growth Index, 4:287, 288
 - Russell Midcap Value Index, 4:287, 288
 - Russell Top 200 Growth Index, 4:287, 288, 313
 - Russell Top 200 Value Index, 4:287, 288
 - Russia
 - debt default, 3:329; 5:150
 - financial crisis, 3:75, 329–330
 - flat tax rate, 2:227
 - gift tax, 2:293
 - in Hague Conference, 2:304
 - tax rates, 2:180
 - tax regime, 2:231, 232n.4, 347
 - Russian ruble, 3:375, 440
 - RVPI, 6:265, 291
- S**
- SAA. *see* strategic asset allocation
 - safety-first rules, 2:191
 - safety reserve, for core capital, 2:283, 285
 - sale(s)
 - of concentrated position, 2:328–329
 - and inventory, 3:52
 - outright, 2:328–329, 341
 - of private business equity, 2:358–360
 - short sales against the box, 2:344, 365–366
 - of single-stock position, 2:341
 - sale and leaseback transactions, 2:368–369
 - sale price, private business equity, 2:362
 - sales pressure, 1:38
 - sales prospects, in evaluation of private equity investments, 5:43
 - sales taxes, 2:226
 - Salomon Smith Barney, 2:520
 - sample estimators, 3:24–25
 - sample-size neglect, 2:57
 - sampling theory, 3:17n.7
 - Samuelson, Paul, 2:72–73; 4:259
 - sanctions, 1:9–10, 15
 - sandwich spread, 5:302n.14
 - satisfice (term), 2:22
 - Saudi Arabia
 - currency pegging, 3:76
 - as import partner, 3:83
 - tax regime, 2:231, 232n.4, 347
 - savings
 - behavioral approach to, 2:37–38
 - household savings rate, 3:61
 - tax-advantaged, 2:245–246
 - tax-sheltered, 2:181
 - savings–investment imbalances
 - forecasting approach, 3:102–103
 - scenario analysis, 3:288
 - assessing tail risk with, 4:231–232
 - hypothetical, 4:231–232; 5:172
 - limits of fund management companies, 5:185
 - for stress testing, 5:171–172
 - sufficient, 1:131
 - Schroder Salomon Smith Barney, 3:49
 - Scope and Purpose of Verification (GIPS Section IV.A), 6:277
 - screening criteria, investment, 2:55
 - SDAX index, 3:485
 - SE. *see* *societas Europaea*
 - seagull spreads, 3:423–424
 - SEAQ market, 6:12
 - search process, for information, 2:135
 - SEC. *see* US Securities and Exchange Commission
 - secondary credit markets
 - bid–ask spreads in, 4:228–229
 - evaluating liquidity in, 4:226–229
 - spread sensitivity to fund outflows, 4:227–228
 - trading volume in, 4:226–227
 - secondary fund vehicles, 6:259, 291
 - secondary offerings, 4:257
 - secondary research, 1:127–128
 - second-stage financing, 5:31
 - secrecy, broker, 6:18
 - sector effect, for fixed-income attribution, 6:165
 - sector exposures, portfolio monitoring for, 6:82–83
 - sectors. *see* economic sectors
 - sector weighting, 6:156–159
 - securities. *see also specific types of securities*
 - description of, 1:141–142
 - eligibility rules of market indexes for, 3:473
 - inherited, 2:78, 79
 - lending of, 4:30–31, 270
 - regulations on sale of, 2:330
 - selection of, 4:206, 322–324
 - security (of electronic information), 1:102
 - security-based benchmarks, 3:470; 6:139–140
 - security exposures, portfolio monitoring for, 6:83
 - Security Market Line (SML), *ex post*, 6:168–169
 - security selection effect, 6:165
 - Security Valuation Book* (NAIC), 2:507
 - seed money, 5:30, 31
 - segmentation, of insurance companies, 2:505
 - segmented markets, 3:42–43
 - segregation, in prospect theory, 2:25
 - selective disclosure, 1:64, 86, 88
 - self-attribution bias
 - of analysts, 2:126, 127
 - of management, 2:132
 - and market bubbles, 2:143
 - and overconfidence bias, 2:73–74
 - self-control bias, 2:37, 76–77
 - consequences of, 2:77
 - detection and methods of overcoming, 2:77
 - diagnostic questions, 2:88, 90–91
 - self-dealing, 1:107
 - self-enhancing bias, 2:74
 - self-insured, 2:392
 - self-interest, perfect, 2:12
 - self-made investors, 2:162
 - self-protecting bias, 2:74

- sell disciplines, active equity investing, 4:302
- sellers, in liquid markets, 6:20
- selling convexity, 4:134
- sell side, 6:19
- sell-side research, 4:298–299, 323
- semiactive equity investing, 4:257, 303–305
- derivatives- vs. stock-based, 4:303, 305
- and Fundamental Law of Active Management, 4:304
- semiactive management, 4:257
- semi-strong-form EMH, 2:29–32
- senior management. *see* management
- senior tranches, 4:239–240
- sensitivities
- factor, 3:28–29
- option price, 5:336
- spread, 4:227–228
- sensitivity analysis, 3:287–288
- sentimental holdings, 6:237
- separate property regimes, 2:275
- Separate Trading of Registered Interest and Principal of Securities. *see* US Treasury STRIPS
- September 11 terrorist attacks, 3:60
- Serbia, 2:304
- Serfaty-de Medeiros, Karine, 3:390–391
- serotonin, 2:19–20
- service(s)
- accumulated, 2:465
- additional, for select clients, 1:88
- of brokers, 6:18
- level of, 1:86
- misrepresentation of, 1:212–213
- service contracts, as insurance, 2:422
- service fees, 1:40
- service providers, selecting, 1:135–136
- settlement, 3:377; 5:140; 6:9
- settlement-date accounting, 6:221, 291
- settlement netting risk, 5:151
- settlement (Herstatt) risk, 5:146
- settlor, 2:299–300
- SEU. *see* subjected expected utility
- SFAS 133. *see* Statement of Financial Accounting Standard 133
- “shadow accounting,” 6:269n.46
- shadow period, 2:307
- shaping risk, 4:130
- shareholder voting policies, 1:257
- share repurchases, Grinold–Kroner model for, 3:33–34
- shares. *see also* equities; stock(s)
- common, 3:93–96, 346–348
- employee share ownership plans, 2:483–484
- issue’s floating supply of, 4:261
- Sharia law (Islamic law), 2:274; 3:338
- Sharpe, William F., 4:259, 277, 283
- Sharpe ratio, 6:169
- defined, 6:168
- and efficient frontier, 3:242, 243
- ex post*, 6:169
- of hedge funds, 5:80–81; 6:145–146
- and risk management, 5:190
- Sharpe style analysis, 3:470
- Sharpe style weights, 4:283
- Shiller, Robert, 2:166, 178
- short extension strategies, 4:300–301
- shortfall probability, 3:362, 366
- shortfall risk, 2:467
- short interest, 3:357
- short positions
- for call options, 5:279–282
- delta hedges of, 5:338–339
- in pairs trading, 4:298
- for put options, 5:282–286
- in risk reversals, 3:422
- in seagull spreads, 3:423–424
- short sales against the box, 2:344, 365–366
- short-term borrowing, country risk and, 3:79
- short-term capital gains tax rate, 2:258–259
- short-term forecasts, 3:357
- short-term income distributions, 2:199
- short-term inputs, 3:262
- short-term shifts, 3:359–361
- should (term), 6:214, 291
- shrinkage estimation, 3:25–26
- sidecar arrangements, 1:246
- side-letter arrangements, 1:246
- Siegel, L., 3:475, 477
- significant cash flows, 6:243n.20
- simple logical participation strategies, 6:43
- simple spending rule, 2:491
- simplification, in prospect theory, 2:25
- simulated frontiers, 3:260
- simulated results, 1:99–100
- simulation analysis, 3:288
- simultaneous dissemination, 1:85
- since inception internal rates of return (SI-IRR)
- GIPS definition, 6:292
- for private equity, 6:267–268
- for real estate, 6:262–265
- Singapore
- and Economic Freedom Index, 3:78
- investment rate, 3:71
- offshore banking centers, 2:310–311
- REITs, 5:14
- residence–source conflicts, 2:307
- RNDs’ assets in, 2:306
- tax regime, 2:231, 347
- territorial tax system, 2:305
- wealth taxes, 2:238
- Singer–Terhaar approach, 3:40–48
- single-asset positions. *see* concentrated single-asset positions
- single-payment loans, 5:215–218
- single-premium immediate annuities (SPIAs), 2:423
- single-stock positions, 2:323, 340–356
- about, 2:340–341
- non-tax considerations, 2:342–343
- risk reduction strategies, 2:343–356
- cross hedging, 2:355–356
- equity monetization, 2:343–347
- exchange funds, 2:356
- hedging, 2:348–354
- tax-optimized equity strategies, 2:354–355
- yield enhancement, 2:354
- tax considerations, 2:341–342
- situational profiling of individual investors, 2:162–165
- by measure of wealth, 2:163
- by source of wealth, 2:162
- by stage of life, 2:163–165
- 60/40 stock/bond heuristic, 3:307–308
- skewed forecasts, 2:127
- skewness
- negative, 5:12n.9
- and performance evaluations, 5:82
- and roles in portfolios, 5:74
- skilled mutual funds, 2:58–59
- skills, overconfidence in, 2:126–131
- slippage (delay costs), 6:23, 25
- slope, yield curve, 4:128, 135–145
- Slovakia, 2:304; 3:9n.
- Slovenia, 2:304; 3:9n.
- slowdown phase (business cycle), 3:53–54
- SLR. *see* standard of living risk
- small-cap equities, 2:144; 4:297
- small-cap stock effect, 3:18
- small-issuer bias, 3:478
- small numbers, law of, 2:57
- small-stock investors, 4:281
- smart beta, 4:105
- smart routing, 6:40, 45
- SML, *ex post*. *see* Security Market Line, *ex post*
- smoothed data, 3:14–16
- smoothing rule, 2:487, 491–492, 494
- socially responsible investing (SRI), 4:225, 296–297; 6:71
- social media, 1:9
- limited disclosures on, 1:89
- and loyalty to employers, 1:108
- material nonpublic information on, 1:59
- misrepresentation on, 1:45
- social proof, 2:137
- sociedad anónima*, 5:35
- societas Europaea* (SE), 5:35
- société anonyme*, 5:35
- society, benefit of ethics to, 1:12
- soft commissions, 1:250
- disclosure of, 1:257
- policies for, 1:76
- soft dollars, 1:76, 250; 6:28–29
- Soft Dollar Standards, 1:250; 6:28
- sole ownership, 2:274
- solicitation, of former clients, 1:109–114
- Solow residual, 3:127
- Solvency II regulatory standards, 3:335
- Sony, 4:278
- Sortino ratio, 5:82, 191
- source jurisdiction, 2:305
- source of wealth classifications, 2:162
- source–source conflicts, 2:307
- South Africa
- equity real rates of return, 4:257
- equity risk premium, 3:39
- expected returns for equities/bonds, 3:25
- gift tax, 2:293
- in Hague Conference, 2:304
- spousal exemptions for estate tax, 2:297
- tax-free gifts, 2:289
- tax rates, 2:180
- tax regime, 2:231, 347
- South African rand, 3:375, 439
- South America. *see also specific countries*
- economic growth in, 3:71
- economic indicators for, 3:83–84
- trusts in, 2:302

- South Korea
in Asian currency crisis, 3:329
economic indicators, 3:83
exports, 3:84
in Hague Conference, 2:304
marginal tax rate, 2:179
real estate investments, 5:14
regulatory constraints in, 3:335
sovereign wealth funds in, 3:338
sovereign ceiling, 4:235
sovereign government bonds
duration management, 4:136
liquidity, 4:19, 20, 226
relative value, 4:234
returns, 4:148
taxation, 4:32
sovereign risk, 5:149–150
sovereign wealth funds (SWFs)
in asset allocation constraints, 3:338
and asset size constraints, 3:325
Soviet Union, 3:128, 129
S&P. *see* Standard and Poor's Corporation
S&P 500 Index
appraisal data on, 3:15, 16
in Asian financial crisis, 3:329
in Assets Category strategy, 6:152
as benchmark, 3:465; 6:247
bond market correlation matrix, 4:6–7
as broad-market index, 6:136, 137
calendar anomalies in, 2:35
capitalization weighting of, 3:473
in capital market forecasts, 3:44
Chinese stock market returns vs., 3:134–136
commodities correlations, 5:48, 53–55, 109–110, 123
composition and characteristics, 4:269
concentration in, 3:477
and distressed debt hedge funds, 5:74
distressed securities correlations, 5:96–97
in EMH studies, 2:32
equity fund investors' performance vs., 2:59
in equity swaps, 5:381, 382, 385
and Fed model, 3:147–148, 150
float weighting, 4:261
forecasting approaches for, 3:140
futures on, 4:274–275, 313; 5:230
Google's inclusion in, 5:32
Grinold–Kroner analysis, 3:34
hedge fund correlations, 5:62–66, 73, 110–111, 124
indexed portfolios, 4:272
and justified P/E estimates, 3:134–135
in LEI, 3:85
long-only positions in, 6:144
managed futures correlations, 5:87–89, 91
market earnings per share forecasting, 3:144–146
Monte Carlo simulations of, 2:198, 199
mutual fund expense ratios, 4:270
passive equity investing, 4:259
portfolio trades with, 4:274; 6:9
private equity correlations, 5:38
as proxy for true market portfolio, 5:228
real estate correlations, 5:17–18, 25, 108, 116
as surrogate, 6:171
and time diversification, 3:334
VaR analysis, 5:156, 160, 161n.39, 167–168
and Yardeni model, 3:151–152
Spain
Conference Board index, 3:84
corporate form of publicly-traded companies, 5:35
domestic tax relief, 2:308
equity real rates of return, 4:257
equity risk premium, 3:39
Eurozone membership, 3:9n.
expected returns for equities/bonds, 3:25
gift tax, 2:293
in Hague Conference, 2:304
tax regime, 2:231, 347
wealth taxes, 2:306
SPAN system, 5:171
SPC. *see* Standards of Practice Council
S&P China BMI Index
dividend discount model, 3:137–139
H-model, 3:132
and justified P/E estimates, 3:134–135
US stock market returns vs., 3:134–136
S&P/Citigroup, 3:471, 474
S&P/Citigroup 500 Growth Index, 4:287
S&P/Citigroup 500 Value Index, 4:287
S&P Citigroup International Treasury Bond Index Series, 3:471
S&P/Citigroup World indexes, 4:293
S&P Corporation. *see* Standard and Poor's Corporation
S&P Dow Jones Global Index, 3:474
S&P Dow Jones Indexes, 3:471
SPDR S&P China ETF, 3:132
specialists, NYSE, 6:17
special purpose vehicles (SPVs), 5:188
specified in advance (term), 3:465n.4; 6:135
speculative grade bonds
default rates vs. real GDP growth rate, 4:216
default rates vs. US high-yield spread, 4:217
rating agency definitions for, 4:192n.2
spending, consumer
and business cycle, 3:60, 61
in business cycle analysis, 3:60, 61
in econometric modeling, 3:81
in United Kingdom, 3:49
spending down, 2:487
spending policies
endowments, 2:489–491, 493–494
foundations, 2:485–487
spending rates, sustainable, 2:285–287
S&P Eurozone Sovereign Bond Index, 4:106, 107
S&P GSCI. *see* Standard & Poor's Goldman Sachs Commodity Index
S&P GSCI Agricultural TR Index, 5:49
S&P GSCI Energy TR Index, 5:49
S&P GSCI Grains TR Index, 5:49
S&P GSCI Industrial Metals TR Index, 5:49
S&P GSCI Livestock TR Index, 5:49
S&P GSCI Petroleum TR Index, 5:49
S&P GSCI Precious Metals TR Index, 5:49
SPIAs. *see* single-premium immediate annuities
S&P Large Value Index. *see* Standard & Poor's Large Value Index
S&P MidCap 400 Index, 4:261
sponsor-directed DC pension plans, 2:464
sponsors, plan, 3:466–467
Spontaneous investors, 2:169
spot markets, foreign exchange, 3:375–377
spousal exemptions, for excess capital, 2:297
spouses, inheritance rights of, 2:275
spread curves
in bottom-up approach to credit strategy, 4:211–214
defined, 4:211
in top-down approach to credit strategy, 4:223
spread duration
as credit quality measure, 4:218
defined, 4:194
as indexing risk factor, 4:96
as metric for position sizing, 4:214–215
Z-spread vs., 4:211–212
spread order, 2:349n.8
spread risk, 4:89, 194–195
spreads, 5:289n.8
bear, 5:296–299
benchmark, 4:200
bid–ask, 6:10
and credit risk, 5:144
effective, 6:12–14
inside, 6:11
and liquidity, 4:20, 22, 198
market, 6:11
and market quality, 6:19
for on-the-run sovereign bonds, 4:19
in secondary credit markets, 4:228–229
and transaction costs, 6:22
bid–offer, 4:94, 155, 198, 199
box, 5:310–312
bull, 5:293–296
butterfly, 4:129; 5:299–303
credit, 3:201; 4:200–206
benchmark spread, 4:200
changes as factor in credit quality decisions, 4:216
excess return, 4:205–206
G-spread, 4:200–201
and interest rate risk, 4:195
I-spread, 4:202
measures in portfolio context, 4:204
OAS, 4:203
Z-spread, 4:203
defined, 5:293
effective, 6:12–14
G-, 4:200–201
I-, 4:202
inside, 6:11
interest, 2:521
market, 6:11
money, 5:293–303
net interest, 2:503

- spreads (*continued*)
 option-adjusted, 4:203
 calculation for portfolio, 4:204
 for corporate bonds (2001-2015), 4:198
 as credit quality measure, 4:218
 empirical duration vs., 4:197
 US CMBS and US corporate bonds, 4:204
 put, 2:348, 350; 3:422–423
 ratio, 5:339n.32
 sandwich, 5:302n.14
 seagull, 3:423–424
 yield, 4:24
 Z-, 4:203, 211–212
 spread sensitivity, 4:227–228
 SPSC. *see* Standard & Poor's Small Cap 600 Index
 S&P TSX Composite, 4:268
 SPVs. *see* special purpose vehicles
 SRI. *see* socially responsible investing
 Sri Lanka, 2:304
 staged exit strategies, 2:359, 361
 stage of life classifications, 2:163–165, 178
 stale price bias, of hedge funds, 5:69–70
 stale prices, 6:27, 39
 Standard and Poor's (S&P) Corporation.
 see also entries beginning S&P
 bond index, 4:95
 bond ratings, 4:98n.24, 192n.2
 CLOs ratings, 4:239
 Global Industry Classification Standard, 4:324
 minimum credit standards, 5:188
 reserve funding adequacy monitoring, 2:503
 stock style indexes, 6:137
 standard deviation
 in asset-only allocation, 3:240
 asset-weighted, 6:253–254
 equal-weighted, 6:253
 ex post, 6:251, 255
 and framing bias, 3:365
 and taxation, 3:342
 standard of living risk (SLR), 2:84
 Standard & Poor's 500 Total Return Index, 5:64
 Standard & Poor's BMI US REIT Index, 5:16
 Standard & Poor's Goldman Sachs Commodity Index (S&P GSCI), 5:17–18, 47–55
 Standard & Poor's (S&P) Large Value Index, 6:137
 Standard & Poor's REIT Composite Index, 5:17
 Standard & Poor's Small Cap 600 Index (SPSC), 4:261, 267; 5:385
 Standards of Practice Council (SPC), 1:10–11, 15
Standards of Practice Handbook, 1:3, 5–9, 11, 14
 eleventh edition, 1:7–9
 revisions to, 1:6–7
 Standards of Professional Conduct, 1:5–19, 21–194; 4:299; 6:29. *see also* Asset Manager Code of Professional Conduct (AMC)
 adoption of, 1:10
 and applicable law, 1:22–23
 conflicts of interest [Standard VI], 1:149–164
 disclosure of conflicts [Standard VI(A)], 1:18, 149–156
 priority of transactions [Standard VI(B)], 1:18, 157–162, 204
 referral fees [Standard VI(C)], 1:18, 162–164
 text of, 1:18
 duties to clients [Standard III], 1:73–105
 fair dealing [Standard III(B)], 1:17, 82–90, 207
 loyalty, prudence, and care [Standard III(A)], 1:17, 73–81, 205, 207
 performance presentation [Standard III(D)], 1:17, 97–101, 213
 preservation of confidentiality [Standard III(E)], 1:17, 101–105
 suitability [Standard III(C)], 1:17, 90–97
 text of, 1:16–17
 duties to employers [Standard IV], 1:105–126
 additional compensation arrangements [Standard IV(B)], 1:17, 116–117
 loyalty [Standard IV(A)], 1:17, 105–115, 205
 responsibilities of supervisors [Standard IV(C)], 1:7–8, 18, 118–126, 204
 text of, 1:17–18
 evolution of, 1:6–7
 and importance of ethics, 1:11–15
 integrity of capital markets [Standard II], 1:56–73
 market manipulation [Standard II(B)], 1:16, 68–73
 material nonpublic information [Standard II(A)], 1:16, 56–67, 210
 text of, 1:16
 investment analysis, recommendations, and actions [Standard V], 1:126–148
 communication with clients and prospective clients [Standard V(B)], 1:8, 18, 137–146, 212
 diligence and reasonable basis [Standard V(A)], 1:18, 126–137, 210–212
 record retention [Standard V(C)], 1:18, 146–148
 text of, 1:18
 notification of, 1:114
 practice problems, 1:177–186
 and Professional Conduct Program, 1:9–10
 professionalism [Standard I], 1:21–56
 independence and objectivity [Standard I(B)], 1:16, 30–42
 knowledge of the law [Standard I(A)], 1:16, 21–29, 203–204
 misconduct [Standard I(D)], 1:16, 53–56
 misrepresentation [Standard I(C)], 1:16, 43–53, 211–213
 text of, 1:16
 responsibilities of CFA members and candidates [Standard VII], 1:165–176
 case study, 1:206
 conduct as participants in CFA Institute programs [Standard VII(A)], 1:8, 19, 165–169
 reference to CFA Institute, designation and Program [Standard VII(B)], 1:19, 170–176
 text of, 1:18–19
 solutions to problems, 1:187–194
 and Standards of Practice Council, 1:10–11
 in *Standards of Practice Handbook*, 1:3, 5–9
 text of, 1:16–19
 and values of CFA Institute, 1:15
 start-up financing, 5:31
 State Farm, 2:515, 516
 statement of duties and responsibilities, 3:184
 Statement of Financial Accounting Standard 133 (SFAS 133), 5:149
 statement of investment objectives, 3:184
 statements of account information, 1:77
 statements of strategic asset allocation, 2:192–193
 State Street Global Advisors, 3:132
 static hedges, 3:412
 stationary time series, 3:24
 statistical methods for setting capital market expectations, 3:23–31
 multifactor models, 3:27–31
 sample estimators, 3:24–25
 shrinkage estimators, 3:25–26
 time-series estimators, 3:26–27
 Statistisches Bundesamt Deutschland, 3:83
 Statman, Meir, 2:5, 8, 64, 166
 status, client, 1:102
 status quo bias, 2:77–78, 120n.5, 331
 consequences of, 2:78
 detection and methods of overcoming, 2:78
 diagnostic questions, 2:87
 and overinvestment in company stock, 2:123
 status quo trap, 3:21
 stereotypes, 2:57
 Sterling-dollar market (USD/GBP), 3:376
 Sterling ratio, 5:82n.107
 Sterling-yen market (JPY/GBP), 3:376
 stock(s). *see also* equities; shares
 adjusting allocation between bonds and, 5:241–243, 246–247
 common, 3:93–96, 346–348
 company, 2:122–123
 and confirmation bias, 2:56
 in defined-contribution pension plans, 2:478
 in 401(k) plans, 2:484n.9
 personal lines of credit secured by, 2:360–361
 concentrated stock positions, 3:364; 6:77–79

- cyclical, 3:94
- employee stock ownership plans, 2:361–362, 483–484
- glamour, 4:279
- growth, 2:144
- investments of insurance companies in, 2:516
- for micro attribution, 6:156–159
- monetary policy and returns for, 6:80
- single-stock positions, 2:323, 340–356
 - about, 2:340–341
 - non-tax considerations, 2:342–343
 - risk reduction strategies, 2:343–356
 - tax considerations, 2:341–342
- 60/40 stock/bond heuristic, 3:307–308
- small-cap stock effect, 3:18
- small-stock investors, 4:281
- value, 2:144
- stock-based semiactive equity investing, 4:303, 305
- stock companies, 2:499
- stock index futures, 4:274–275; 5:230, 232
- stock life insurance companies, 2:411, 508n.25
- stock ownership, 1:151, 152
- stock prices, stock splits and, 2:31
- stock splits, 2:31
- stops, 3:401–402
- store of value assets, 3:195
- stories, research conclusions presented as, 2:133
- STP. *see* straight through processing
- straddles, 3:405; 5:307–310
- Straight Arrow (BB&K classification), 2:110
- straight through processing (STP), 5:140; 6:10
- strangles, 3:405; 5:309
- straps, 5:309
- strategic asset allocation (SAA), 3:201–216; 4:104
 - asset-only allocation, 3:203–208
 - for common stock, 3:346–348
 - goals-based allocation, 3:211–216
 - liability-relative allocation, 3:208–211
 - as long-term movement, 3:262
 - with managed futures, 5:92–93
 - Monte Carlo simulations used in, 3:249–250
 - with real estate, 5:26–27
 - real-world constraints in, 3:349–355
 - statements of, 2:192–193
 - steps in selecting, 3:202–203
 - utility theory in, 3:201–202
- strategic asset location, 3:341, 345
- strategic buyers, 2:358
- strategic currency management
 - decisions, 3:387–398
 - currency exposures, 3:389–392
 - cost considerations, 3:391–392
 - diversification considerations, 3:389–391
 - currency risk, 3:392–396
 - active currency management, 3:393–394
 - currency overlay programs, 3:394–396
 - discretionary hedging, 3:393
 - passive hedging, 3:393
 - formulating currency management programs, 3:396–398
 - Investment Policy Statements, 3:387–388
 - portfolio optimization, 3:388–389
 - strategic hedging, 4:84
- Strategic Money Management, 5:235
- strategic partners, 5:31, 32
- strategy benchmarks, 3:470
- stratified sampling, 4:99–100, 272–273
- stress testing, 5:171–172
- strips, 5:309
- strong-form EMH, 2:29–30
- structural level of unemployment, 3:73
- structural policies, government, 3:72–73
- structural risk, 4:62, 71
- structured financial instruments, 4:29
 - in credit portfolios, 4:236–241
 - asset-backed securities, 4:239
 - CDOs, 4:239–240
 - covered bonds, 4:240
 - MBS, 4:237–238
 - in fixed-income portfolio, 4:29
- structured mandates, 4:11. *see also* liability-based mandates
- structured notes, 4:183–184; 5:359, 366–370
- style bias, 6:149n.19, 153
- style box, 4:294–295
- style classification, manager-based hedge fund index, 5:61
- style-defined composites, 6:270
- style drift, 4:295–296; 5:75
- style exposures, portfolio monitoring for, 6:82–83
- style indexes, 4:277, 291–294; 6:137
- style matrix, 6:239
- style rotator (investment style), 4:281
- style weights, 4:283
- stylized scenarios, analysis of, 5:171
- subadvisers, selecting, 1:129, 136
- sub-asset classes, 3:199
- subjected expected utility (SEU), 2:21–22
- submanagers
 - and IPS reviews, 1:96
 - selection of, 1:132–133
- subordinated tranche, 4:239, 240
- subordination, 4:239
- subperiod rates of return, 6:127–128
- sub-portfolios
 - construction of, 3:292–293, 295–298, 300–304
 - in goals-based allocation, 3:214–216
 - time horizon management with, 3:332
- substitution, 4:302
- suitability, 1:97
 - of alternative investments, 5:11
 - in AMC, 1:248
 - for entire portfolio, 1:94–95
 - for investor risk profile, 1:94, 96
- Suitability [Standard III(C)], 1:90–97
 - application of the standard, 1:94–97
 - compliance procedures, 1:93–94
 - investment policy statements, 1:93
 - regular updates, 1:94
 - suitability test policies, 1:94
 - guidance, 1:90–93
 - developing investment policies, 1:91
 - managing to indexes or mandates, 1:93
 - need for diversification, 1:92
 - understanding client's risk profile, 1:91
 - unsolicited trading requests, 1:92–93
 - updating investment policies, 1:92
 - text of, 1:17, 90
- suitability test policies, 1:94
- summaries, attributing, 1:47
- sunshine trades, 6:38
- Super Bowl indicator, 2:139
- supervision
 - detection as part of, 1:119–120
 - inadequate, 1:124–125
 - of research activities, 1:122–123, 125–126
 - system for, 1:119
 - of trading activities, 1:123
- supervisors. *see* Responsibilities of Supervisors [Standard IV(C)]
- supplemental information, 6:238, 280, 292
- supplements, VaR, 5:170–171
- supply
 - business-cycle related, 5:51–52
 - money, 3:65
 - in relative value analysis, 4:212–213
 - of shares, 4:261
 - of venture capital, 5:31–34
- support levels, 3:401
- Suriname, 2:304
- surplus
 - common stock to surplus ratio, 2:512–513
 - in contingent immunization, 4:77
 - defined, 5:168
 - of insurance companies, 2:501n.21, 512–513
 - and liabilities, 3:275, 276
 - of non-insurance companies, 2:514
 - pension, 2:465, 467
 - surplus at risk, 5:168
 - surplus capital, 2:335
 - surplus efficient frontier, 3:279–280
 - surplus optimization, 3:277–282
 - compared to other approaches, 3:286–287
 - defined, 3:276
 - as liability-relative approach, 3:192
 - surrender cost index, for life insurance, 2:414, 415
- survey methods, 3:48–49
- survival probability, core capital based on, 2:280–284
- survivor bias (survivorship bias), 3:14; 5:69; 6:141
- survivorship, joint ownership with right to, 2:274
- sustainability, of capital markets, 1:12–13
- sustainable spending rates, 2:285–287
- swap markets, foreign exchange, 3:380–381
- swap rate, 4:202; 5:143n.8

- swaps. *see also* risk management
 applications of swap strategies
 credit default
 and credit risk, 5:189
 index derivatives, 4:230–231
 for liquidity risk management,
 4:230–231
 as tail risk hedge strategy instrument,
 4:232–233
 currency, 4:236; 5:179–180, 374
 equity, 5:380–389
 diversification of concentrated
 portfolios, 5:380–382
 and executives, 5:389
 and fixed-income swaps, 5:384–389
 international diversification,
 5:382–384
 total return, 2:344–345; 4:275–276
 fixed-income, 4:29; 5:384–389
 forward, 5:404
 interest rate, 4:22, 29
 currency swaps vs., 5:374
 DB pension plan derivatives strategy,
 4:82–88
 duration management, 4:139–140
 uncollateralized interest rate swaps,
 4:89–90
 matched, 3:380–381, 412
 measuring credit risk of, 5:177
 mismatched, 3:380, 381
 off-market, 5:358n.1
 terminating, 5:394–397
 total return
 credit risk, 5:189
 equity total return swaps, 2:344–345;
 4:275–276
 passive bond market exposure,
 4:102–103
 swaption collars, 4:84–87, 89
 swaptions, 5:389–404
 defined, 5:359
 and forward swaps, 5:404
 for future borrowing, 5:390–394
 interest rate, 5:390–397
 receiver, 4:84; 5:398–403
 removing/adding call features with,
 5:398–403
 strategies for managing, 5:389–404
 terminating swaps with, 5:394–397
 Sweden
 equity real rates of return, 4:257
 equity risk premium, 3:39
 exit taxation, 2:306–307
 expected returns for equities/bonds,
 3:25
 in Hague Conference, 2:304
 inflation-linked bonds, 4:9
 negative interest rates, 3:65
 real estate market, 5:25
 real GDP growth rate, 3:32
 tax regime, 2:231, 347
 Swedish krona, 3:375
 Swenson, David, 3:308
 SWFs. *see* sovereign wealth funds
 Swiss franc
 benefits of currency exposure for,
 3:391n.11
 currency code, 3:375
 in currency pairs, 3:376
 as haven currency, 3:439
 synthetic dual-currency bond in,
 5:379–380
 Switzerland
 equity real rates of return, 4:257
 equity risk premium, 3:39
 expected returns for equities/bonds,
 3:25
 gift tax, 2:293
 in Hague Conference, 2:304
 market integration, 3:43
 negative interest rates, 3:65
 ownership of private business
 enterprises, 2:322
 pension fund equity allocations, 4:255
 real estate market, 5:25
 real GDP growth rate, 3:33
 regulatory constraints in, 3:335
 tax regime, 2:231, 347
 trade partners, 3:83
 wealth taxes, 2:306
 synthetic index funds, 5:233–236
 systematic account reviews, 1:86
 systematic approach to research, 2:135
 systematic biases, benchmark, 6:142
 systematic risk
 and asset allocation, 2:443
 with concentrated positions, 2:324
 managing, 5:229
 and rebalancing, 6:85
 and return, 6:79
 systematic trading strategies, 5:86
T
 $T + 1$ settlement, 3:377n.4
 $T + 2$ settlement, 3:377
 tactical asset allocation (TAA)
 benchmark selection for, 4:104
 discretionary, 3:357–358
 equity swaps in, 4:276
 global, 3:216, 356n.18
 new analysis and information for, 6:82
 real-world constraints in, 3:356–361
 as short term, 3:262
 systematic, 3:358–359
 tactical currency management decisions,
 3:399–409
 carry trade in, 3:402–404
 economic fundamentals in, 3:399–400
 example, 3:407–409
 technical analysis in, 3:401–402
 volatility trading in, 3:404–409
 tactical rebalancing, 6:93
 Taft-Hartley Labor Act, 2:473
 tag-along arrangements, 1:246
 tail risk, 4:231–233
 assessing, 4:231–232
 managing, 4:232–233
 scenario analysis, 4:231–232
 tail risk hedge strategy, 4:231–232
 tail value at risk (TVaR), 5:170
 Taiwan
 tax rates, 2:180
 tax regime, 2:231, 347
 territorial tax system, 2:305
 Tankan Survey, 3:83
 “Taper Tantrum,” 4:198
 TAQ database. *see* Trade and Quote
 database
 target covariance matrix, 3:25–26
 target-date funds. *see also* life-cycle
 balanced funds
 asset allocation and human capital in,
 3:188
 and glide paths, 2:121; 3:353
 use of “120 minus your age” rule by,
 3:306–307
 target dollar duration of portfolio,
 5:222–223
 target semideviation, 5:191n.55
 target weights, rebalancing to, 6:93–94
 taxable accounts, 2:246, 390
 tax-advantaged savings accounts,
 2:245–246
 tax alpha, 2:251
 tax avoidance, 2:181, 310
 tax cost basis, 2:329
 tax deferral
 for capital gains, 2:234–237
 by individual investors, 2:181
 with tax loss harvesting, 2:256–257
 tax-deferred accounts (TDAs), 2:246
 and after-tax asset allocation,
 2:247–248
 asset location for, 2:251–254
 financial capital in, 2:390
 and investment risk, 2:250
 rebalancing to, 3:345–346
 retirement, 2:232
 selecting tax exempt accounts vs.,
 2:248–250
 tax drag
 and accrual equivalent tax rate, 2:244
 and returns-based taxes, 2:233, 235
 and trading behavior, 2:254, 258
 tax efficiency, 2:327; 6:70
 taxes, 2:225–269. *see also specific types*,
 e.g.: income taxes
 after-tax accumulations and returns,
 2:232–245
 accrual equivalent returns, 2:243–245
 accrual equivalent tax rates,
 2:244–245
 blended tax environments, 2:239–243
 and GIPS, 6:280–283
 simple tax environments, 2:232–239
 after-tax portfolio optimization,
 3:341–344
 and after-tax wealth, 2:225–226
 and alternative investments, 5:11
 and annuities, 2:429
 and asset allocation, 2:196, 292–293
 and concentrated positions
 equity monetization strategies,
 2:345–347
 hedging strategies, 2:352–354
 leveraged recapitalization, 2:359
 managing single-stock positions,
 2:341–342
 monetization of private business
 equity, 2:362
 outright sale of positions, 2:328–329
 and cross-border estate planning,
 2:305–310
 double taxation, 2:307–310
 double taxation treaties, 2:308–310
 exit taxes, 2:306–307
 foreign tax credit provisions, 2:307–308

- income taxes, 2:305–306
- wealth and wealth transfer taxes, 2:306
- and disability income insurance, 2:438
- for endowments and foundations, 3:337–338
- for equity total return swaps, 4:275–276
- and estate planning, 2:276–278
- for fixed-income portfolios, 4:32–35
- investment vehicle choice, 4:33–34
- principles, 4:32–33
- global income tax structures, 2:226–232
 - common elements, 2:227–229
 - dimensions in tax planning, 2:232
 - general regimes, 2:229–232
 - international comparisons of income taxes, 2:227
- and government structural policies, 3:73
- for individual investors, 2:179–182
 - early transfers, 2:182
 - jurisdiction for taxation, 2:185
 - tax avoidance, 2:181
 - tax deferral, 2:181
 - tax reduction, 2:181–182
 - transfer at death, 2:182
 - wealth transfer taxes, 2:182
- for institutional investors
 - banks, 2:523
 - defined-benefit plans, 2:472
 - endowments, 2:495
 - foundations, 2:487–488
 - life insurance companies, 2:506
 - non-life insurance companies, 2:514, 516–517
- and investment account types, 2:245–250
 - after-tax asset allocation, 2:247–248
 - selecting account type, 2:248–250
 - tax-deferred accounts, 2:246
 - tax-exempt accounts, 2:246–247
- and investment risk, 2:250–251
- and life insurance, 2:302–303
- in Monte Carlo simulations, 2:199
- pass-through treatment, 4:33
- and portfolio monitoring, 6:70
- practice problems, 2:262–266
- and rebalancing, 3:226, 344–345; 6:89
- in sample IPSs, 2:187, 190
- and sell disciplines, 4:302
- solutions to problems, 2:267–269
- strategies to reduce tax impact, 3:345–346
- taxation of residents, 2:305–306
- and trusts, 2:183, 301
- and wealth management, 2:251–260
 - after-tax mean–variance optimization, 2:260
 - asset location, 2:251–254
 - holding period management, 2:258–260
 - tax loss harvesting, 2:255–258
 - trading behavior, 2:254–255
- tax evasion, 2:310
- tax-exempt accounts, 2:246–247
 - and after-tax asset allocation, 2:247–248
- asset location for, 2:251–254
- rebalancing to, 3:345
- selecting TDAs vs., 2:248–250
- tax-exempt securities, 2:181
- tax loss harvesting, 2:255–258
 - adding net-of-tax principal, 2:257–258
 - and constraints on individual investors, 2:181–182
 - current tax savings, 2:255–256
 - with fixed-income portfolios, 4:33, 34
 - and GIPS standards, 6:283
 - and portfolio rebalancing, 3:345
 - tax deferral, 2:256–257
- tax-optimized equity strategies, 2:354–355
- tax premiums, 3:37
- tax rates
 - accrual equivalent, 2:244–245
 - capital gains, 2:258–260
 - implied annual capital gains, 3:341n.11
 - marginal, 2:227
 - in other countries, 2:179–180, 227–229
 - progressive structures, 2:227, 229–231, 278, 301
- Tax Reform Act (1969), 2:486
- tax risk, 5:148
- tax-sheltered savings accounts, 2:181
- Taylor rule, 3:63–64
- TBI for Institutional Commercial Property Performance. *see* Transaction-Based Index for Institutional Commercial Property Performance
- T-bills. *see* US Treasury bills
- T-bonds. *see* US Treasury bonds
- TDAs. *see* tax-deferred accounts
- technical analysis, currency management and, 3:401–402
- technical anomalies, 2:34
- technical model requirements, 1:136–137
- technology, validation of, 5:44
- technology bubble (1990s), 2:69, 142
- technology sector, 6:158–159
- temporary disequilibrium behavior, 2:139
- temporary life insurance, 2:406
- temporary new accounts, 6:243, 292
- termination policies, 1:109
- term life insurance, 2:406, 499n.19
- territorial tax systems, 2:305
- testamentary gratuitous transfers, 2:277
- testator, 2:274
- tests of quality (benchmark), 6:142–143
- Texas hedge, 3:432n.34
- TFP. *see* total factor productivity
- Thai baht, 3:329, 438
- Thailand
 - in Asian currency crisis, 3:329
 - economic indicators, 3:83
 - tax regime, 2:231, 347
- Thaler, Richard, 2:64, 72, 166
- “The Theory of Speculation” (Bachelier), 2:30
- theta, 5:152
- third-party confirmation of information, 1:251–252
- third-party custodians, 1:32
- third-party research, 1:127–128, 132
- third-stage financing, 5:31
- Thomson Venture Economics, 3:469; 5:36
- thresholds, rebalancing, 6:94
- TIAA-CREF plans, 2:120n.6, 122
- tick (term), 4:275n.28
- Tierney, David E., 3:465, 468, 480
- timberland investment management organizations (TIMOs), 5:19
- time, delta and, 5:336–337
- time deposit, 2:520n.30
- time diversification, of risk, 3:334
- time frame
 - of decision and dissemination, 1:84–85
 - and performance calculation, 1:98
- time horizon
 - and accumulation for deferred capital gains, 2:236
 - in asset allocation, 3:240, 330–334
 - for capital market expectations, 3:7, 10
 - changes in, 6:69–70
 - and currency hedging, 3:389–390
 - and expected value of returns, 2:198, 199
 - in goals-based allocation, 3:304
 - for individual investors, 2:178
 - for institutional investors
 - banks, 2:523
 - defined-benefit plans, 2:471–472
 - endowments, 2:494–495
 - foundations, 2:487
 - life insurance companies, 2:506
 - non-life insurance companies, 2:515–516
 - in investment policy statements, 6:72, 76
 - in sample IPSs, 2:187, 190
 - in sub-portfolio construction, 3:296
 - and taxes/capital growth, 2:233–234
 - VaR, 5:158–159
 - and wealth tax/investment growth, 2:238–239
- timeline, venture capital, 5:31
- time-period biases, 3:18–19
- time-series estimators, 3:26–27
- time-series momentum, 3:358n.21
- time to expiration, 5:52
- time value of currency options, 3:418
- time-weighted average price (TWAP) strategy, 6:43
- time-weighted rate of return (TWR), 6:126–131
 - about, 6:126–128
 - GIPS definition, 6:292
 - and linked internal rate of return, 6:131, 132
 - MWR vs., 6:129–131
 - as requirement of GIPS standards, 6:224
- time-weighted total return, 6:223–226
- timing, of taxation, 2:259–260
- TIMOs. *see* timberland investment management organizations
- TIPS. *see* US Treasury Inflation-Protected Securities
- title insurance, 2:422
- Tobin's *q* ratio
 - and asset-based models, 3:157–160
 - strengths and limitations, 3:161

- Tokyo Stock Exchange, 3:474; 4:268; 6:16
- Tokyo Stock Exchange Price Index (TOPIX)
- alpha and beta separation, 4:313
 - capitalization weighting for, 3:474
 - composition and characteristics, 4:268, 269n.a
 - float weighting for, 4:261
 - as pension fund benchmark, 4:306
 - stratified sampling for, 4:272
- tolerance bands, 3:314; 6:92–93
- top down approach to psychographic modeling. *see* behavioral alpha process
- top-down credit strategy approach, 4:215–223
- bottom-up approach vs., 4:224
 - country/currency exposure, 4:222–223
 - credit quality, 4:216–219
 - defined, 4:206
 - excess returns in, 4:219
 - industry sector allocation, 4:220–221
 - interest rate measurement/management, 4:221–222
 - spread curves in, 4:223
- top-down forecasts, 3:140–146
- bottom-up vs., 3:141, 144–145
 - earnings forecast revisions based on, 3:145–146
 - of market earnings per share, 3:144, 146
 - portfolio suitability for, 3:142–143
 - using bottom-up forecasts with, 3:143–145
- top-down research approaches, 4:316, 322, 323
- TOPIX. *see* Tokyo Stock Exchange Price Index
- Toronto 300 Composite, 5:384
- Toronto Stock Exchange (TSE), 4:268; 6:15, 31–32
- total factor productivity (TFP)
- growth in, 3:70–72
 - and neoclassical approach to growth accounting, 3:127
- total firm assets, GIPS definition, 6:219–220, 292
- total future liability, pension plan, 2:465
- total rate of return, 6:126
- total return(s)
- endowment spending based on, 2:489–491
 - of fixed-income securities, 6:164–165
 - for insurance companies, 2:504
 - investor requirements based on, 2:172–173
 - mandates on, 4:11, 15–19
 - active management, 4:17
 - pure/enhanced indexing, 4:16–17
 - for non-life insurance companies, 2:514
 - time-weighted, 6:223–226
- total return payer, 4:102
- total return receiver, 4:102
- total return swaps (TRSs)
- and credit risk, 5:189
 - equity, 2:344–345; 4:275–276
 - passive bond market exposure with, 4:102–103
- total risk
- absolute contribution to, 3:267–268
 - marginal contribution to, 3:267–268
- total value, in TVPI, 6:265, 292
- Toyota, 4:272
- TRACE. *see* Trade Reporting and Compliance Engine
- tracking error
- of benchmarks, 6:139n.12, 142
 - enhancement strategies to reduce, 4:99–100
 - and indexing risk, 4:97
 - and matching portfolios to indexes, 4:92
 - and total return mandates, 4:16
- tracking risk
- and equity approach, 4:258
 - and market risk, 5:152
 - and matching underlying bond indexes, 4:92
 - in total return mandates, 4:16
- trade (foreign)
- business cycle and, 3:60
 - and currency returns, 3:100
 - overall trade balance, 3:79n.64
- trade allocation procedures
- developing and documenting, 1:85
 - disclosure of, 1:86, 257
 - fair and equitable, 1:250
- Trade and Quote (TAQ) database, 6:52
- trade blotter, 6:46
- trade date accounting, 6:221, 222, 292
- trade execution decisions, 6:36–47
- automated trading, 6:40–47
 - algorithmic trading, 6:40–47
 - classification of algorithmic execution systems, 6:42–45
 - reasoning for logical participation
 - algorithmic strategies, 6:45–47
 - for handling of a trade, 6:36–37
 - and objectives in trading, 6:37–40
- Trade Management Guidelines, 6:48–49
- Trade Reporting and Compliance Engine (TRACE), 4:94–95
- and bond market, 4:21
 - evaluating bond liquidity with, 4:226
 - and US bond market, 4:236
- traders, 6:32–36
- behavior of, 2:254–255
 - buy-side, 6:6
 - day, 6:34
 - information-motivated, 6:33–35
 - liquidity-motivated, 6:34, 35, 36
 - passive, 6:34, 36
 - preferred order types of, 6:35–36
 - rogue, 5:145
 - roles of, 6:41
 - types of, 6:6, 33–35
 - value-motivated, 6:34, 35
- trades
- basket, 4:274
 - and business cycle, 3:60
 - carry, 3:402–404, 415; 4:134–135
 - cash market, 6:99
 - handling of, 6:36–37
 - missed trade opportunity costs, 6:23, 25
 - opposite sides of, 6:18
 - pairs, 4:298 (*see also* long–short investing)
 - portfolio, 4:274; 6:9
 - positioning, 6:17
 - principal, 6:9
 - program, 4:274
 - size, relative to available liquidity, 6:30
 - sunshine, 6:38
 - urgency of, 6:33
- trade settlement, 5:140; 6:9
- trading
- active, 2:254, 258
 - automated, 6:40–47
 - algorithmic trading, 6:40–47
 - classification of algorithmic execution systems, 6:42–45
 - defined, 6:40
 - reasoning for logical participation
 - algorithmic strategies, 6:45–47
 - CISDM CTA benchmarks for, 5:86–89
 - and corporate bond portfolio liquidity, 4:198–199
 - discretionary strategies, 5:86
 - excessive, 2:123–124
 - ethics violation examples, 1:80, 89
 - and framing bias, 2:67
 - and illusion of control bias, 2:61
 - and loss-aversion bias, 2:72
 - and market bubbles, 2:143
 - for family member accounts, 1:160
 - frequency of, 4:302
 - objectives in, 6:37–40
 - pairs, 4:298; 6:42–43
 - personal, 1:69–70
 - and conflict of interest, 1:155
 - disclosure of, 1:161
 - disclosure of policies for, 1:160
 - limitations on, 1:62
 - priority of transactions for, 1:157, 204–205
 - priority of transactions for, 1:157
 - prior to dissemination, 1:161–162
 - proprietary trading procedures, 1:63
 - risk-arbitrage, 1:63
 - rules-based, 6:42–43
 - supervising trading activities, 1:123
 - systematic strategies, 5:86
 - and wealth management, 2:254–255
 - as zero-sum game, 6:49
- Trading (AMC Part C), 1:242–243, 248–250
- trading activity, in fixed-income attribution, 6:165
- “trading and other” factor, in micro attribution, 6:157–158
- trading costs, 6:21–32
- for currency hedging, 3:391–392
 - econometric models for costs, 6:30–32
 - with emerging market currencies, 3:438–440
 - transaction cost components, 6:22–30
- trading expenses
- defined, 6:292
 - and gross-of-fees returns, 6:257
 - and returns calculations, 6:231–232
- trading range breaks, technical anomalies in, 2:34
- trading requests, unsolicited, 1:92–93
- trading style, 6:30

- trading volume
 - in AMC, 1:246
 - and market manipulation, 1:70
 - in secondary credit market, 4:226–227
- traditional balance sheet, 2:395–397
- traditional finance
 - behavioral vs., 2:5–6
 - individual behavior in, 2:8–14
 - perfect rationality, self-interest, and information, 2:12
 - rational economic man, 2:11–12
 - risk aversion, 2:13–14
 - utility theory and Bayes' formula, 2:8–11
 - market behavior in, 2:28–36
 - portfolio construction in, 2:36
 - and psychological profiling of individual investors, 2:165–166
- training, compliance, 1:121
- tranches, 4:237, 239–240
- transaction allocation, 1:87–88
- Transaction-Based Index (TBI) for Institutional Commercial Property Performance, 5:16
- transaction-based manipulation, 1:69
- transaction cost(s), 3:314–315
 - with active management, 4:17, 22
 - with cash flow matching, 4:12
 - components of, 6:22–30
 - econometric model for, 6:30–32
 - with indexed portfolios, 4:270–272
 - and liquidity, 2:176
 - of portfolio rebalancing, 3:314–315; 6:88–89
- transaction expenses, 6:260, 266, 292
- transaction exposure, 5:251
- transactions, priority of. *see* priority of transactions
- transcription errors, 3:14
- transformable (consumable) assets, 3:195
- Transitivity axiom (utility theory), 2:9
- translation exposure, 5:251
- transparency
 - in cross-border estate planning, 2:310–311
 - defined, 6:9
 - market index, 3:476
 - pre- and post-trade, 6:20
- Travelers Group, 2:520
- Travelers Insurance, 2:515, 516, 520
- travel expenses, 1:36–37, 39–40
- travel funding, 1:35
- Treasury bills, 6:95. *see also* US Treasury bills (T-bills)
- trend-chasing effect, 2:141
- trend following, 3:358–359
- trending effects. *see* momentum, market trends, representative bias and, 3:364
- Treynor, Jack, 6:24
- Treynor measure, 6:168–169
- trigger points, 3:224
- tri-party repos, 4:30
- T Rowe Price, 2:121
- TRS. *see* total return swap
- true active risk, 4:311–312
- trust companies, 2:183
- trust departments, 2:183
- trustees, 2:158, 183–184, 473
- trusts, 2:183–184, 299–301
 - asset protection, 2:301
 - beneficiaries of, 2:184–185
 - blind, 1:200
 - charitable, 2:368
 - charitable remainder, 2:287–288
 - in common law, 2:274
 - control, 2:300
 - discretionary, 2:300, 301
 - fixed trusts, 2:300
 - and Hague Conference, 2:305
 - irrevocable, 2:183–184, 300, 301
 - personal, 2:183–184
 - real estate investment, 5:14–15; 6:259
 - tax avoidance with, 2:181
 - tax reduction, 2:301
 - venture capital, 5:32
- Trust Universe Comparison Service (TUCS), 6:210
- TSE. *see* Toronto Stock Exchange
- Turkey
 - in Hague Conference, 2:304
 - tax regime, 2:231, 347
- turnaround partners, 5:99
- turnover
 - benchmark, 6:143
 - market index, 3:476
 - portfolio, 2:116
- TVaR. *see* tail value at risk
- Tversky, Amos, 2:70, 166
- TVPI, 6:265, 292
- TWAP strategy. *see* time-weighted average price strategy
- twin deficits problem, 3:72–73
- twists, yield curve, 4:61–62, 71; 5:171n.45
- two-fund separation, 3:246
- two-layer factor approach for modeling covariance, 3:30
- two-portfolio approach, 3:282–283
- TWR. *see* time-weighted rate of return
- Type I liabilities, 4:50
- Type II liabilities, 4:50, 78–79
- Type III liabilities, 4:50, 79
- Type IV liabilities, 4:50, 79, 80
- Type I error, in MCP analysis, 6:181–182
- Type II error, in MCP analysis, 6:181–182
- U**
- UCITS. *see* Undertakings for Collective Investment in Transferable Securities
- Ukraine
 - in Hague Conference, 2:304
 - pension funds, 3:335
 - tax regime, 2:231, 232n.4, 347
- UMIFA. *see* Uniform Management of Institutional Funds Act
- unambiguous benchmarks, 3:465n.4; 6:135, 140
- uncertainty
 - in cash flow, 3:283–284
 - execution, 6:8
 - input, 3:23
 - model, 3:23
 - price, 6:7
- unconditional benchmarks, 3:19
- unconditional expected returns, 3:19–20
- unconditional inputs, 3:262
- uncovered interest rate parity theorem, 3:402
- undeclared funds, 2:310
- underfunded pension plans, 2:465, 466
- under-hedging, 3:421
- underlying
 - for covered calls, 5:286–290
 - for derivatives, 3:404n.21
 - for equity portfolios, 5:286–292
 - for protective puts, 5:290–292
- Undertakings for Collective Investment in Transferable Securities (UCITS), 4:273
- underwriting
 - life insurance, 2:409
 - at non-life insurance companies, 2:512, 516
- undisclosed limit order, 6:8–9
- unemployment, structural level of, 3:73
- unethical actions, reporting, 1:29
- Uniform Management of Institutional Funds Act (UMIFA), 2:488, 490, 495
- unilateral pegging of currency, 3:75–76
- unintentional errors, correction of, 1:48
- unique circumstances
 - for banks, 2:524
 - for defined-benefit plans, 2:473–476
 - for endowments, 2:495–496
 - for foundations, 2:488
 - of individual investors, 2:185, 187
 - for life insurance companies, 2:508
- United Arab Emirates, 2:276; 3:76, 83
- United Energy Services, 5:223–225
- United Kingdom
 - BRC survey, 3:61
 - capital gains treatment, 4:33
 - CLI, 3:82
 - Conference Board index, 3:84
 - corporate form of publicly-traded companies, 5:35
 - defined-benefit pension plans, 2:464, 466n.3, 473
 - deflation, 3:56–57
 - denationalization, 3:136
 - economic growth, 3:69
 - equity indexes' composition/ characteristics, 4:268
 - equity in residential property, 5:20
 - equity real rates of return, 4:257
 - equity risk premium, 3:39
 - expected returns for equities/bonds, 3:25
 - Fed model with UK data, 3:150
 - foreign currency payments, 5:253–254
 - gift tax, 2:294
 - in Hague Conference, 2:304
 - house price average multiple of family income, 2:142
 - inflation, 3:55–56
 - inflation hedging by real estate, 5:20
 - inflation-indexed bonds, 3:92–93
 - inflation-linked bonds, 4:9
 - infrastructure funds in, 5:15
 - inheritance tax, 2:277–278
 - insurance companies, 2:499, 507
 - interest income taxation, 2:233
 - legal system, 2:274
 - market bubbles, 2:142

- United Kingdom (*continued*)
 market integration, 3:43
 momentum effect in, 2:140
 ownership of private business enterprises, 2:322
 pension fund equity allocations, 4:255
 pensions, 2:390
 private equity, 5:29, 36–37
 real estate investment in, 5:21, 22
 real estate market, 5:16, 19, 25
 real GDP growth rate, 3:33; 4:216
 regulatory constraints, 3:325
 return on government bonds, 3:91
 short-term consumer spending, 3:49
 Solvency II program in, 3:335n.7
 spousal exemptions for estate tax, 2:297
 stock purchases, 2:323
 taxable gifts, 2:291
 tax-advantaged savings accounts, 2:246
 taxation of residents, 2:306
 taxation on pension funds, 2:472
 tax-free gifts, 2:289
 tax incentives, 3:351
 tax rates, 2:180
 tax regime, 2:231, 347
 TFP growth, 3:71
 trade partners, 3:83
 volatility index, 3:357
 wealth taxes, 2:238
 weekend effect, 2:139
- United Nations System of National Accounts (UNSNA), 3:14
- United States
 asset class classification in, 3:241
 bankruptcy law, 4:236
 bankruptcy process, 5:101
 banks, 2:519–520, 522
 bonds
 default rates, 4:220
 expected returns for equities/bonds, 3:25
 market transparency, 4:21
 municipal bond futures contracts in, 5:226
 return on government bonds, 3:91–92
 unsecured bond recovery rate, 4:235
 yields, 3:76
 capital flows forecasting approach, 3:102
 capital gains treatment, 4:33
 China equity market valuation vs., 3:135–137
 CLI, 3:82
 commodity market, 5:47
 corporate form of publicly-traded companies, 5:35
 credit market, 4:234
 default levels, 4:233
 deflation, 3:56–57
 degree of specialization, 3:75
 de-risking, 3:349
 disintermediation, 2:499, 505
 distressed securities, 5:94, 95
 donor-advised funds, 2:367–368
 Economic Freedom Index, 3:78
 economic growth, 3:128, 130
 employee stock ownership plans, 2:361
 endowments, 2:495
 energy industry in credit market indexes, 4:234
 equities
 equity indexes' composition/characteristics, 4:267–269
 equity real rates of return, 4:257
 equity risk premium, 3:34–35, 39
 expected returns for equities/bonds, 3:25
 exchange rate linkages, 3:76
 Fed model with US data, 3:147–148
 formative-stage companies, 5:30
 foundations, 2:484, 486–488
 GDP growth and business cycles, 3:70–71
 growth accounting in, 3:128, 129
 in Hague Conference, 2:304
 hedge fund market, 5:60
 indexed portfolio regulation, 4:273
 inflation, 3:55–56
 inflation-indexed bonds, 3:92–93
 inflation-linked bonds in, 4:9
 insurance
 health/medical insurance, 2:421
 insurance industry, 2:499
 life insurance companies, 2:500–501, 503–508
 non-life insurance companies, 2:511, 513–515, 517
 inventory/sales ratio, 3:52
 laws on transparency in banking, 2:311
 legal system and wills in, 2:274
 liquidity of credit market, 4:236
 macroeconomic linkages, 3:75
 managed care facilities, 2:177
 managed futures market, 5:86
 market bubbles, 2:142
 market integration, 3:43
 mismatch in character, 2:353–354
 monetary policy, 3:66
 monetizing tax-free exchanges, 2:369
 normal distribution of common stocks, 2:191–192
 ownership of private business enterprises, 2:322
 pensions
 defined-benefit pension plans, 2:464, 472–473
 government pensions, 2:390
 pension fund equity allocations, 4:255
 pension fund regulations in, 3:336
 pension funds, 5:9
 P/E ratios, 3:97
 PMI, 3:62
 prepaid variable forwards, 2:330
 private equity
 capacity, 5:29
 investors in private equity funds, 5:33–34
 returns, 5:38
 public foundations in, 3:337
 real estate investment in, 5:12–25
 real GDP growth rate, 3:33; 4:216
 recessions, 3:60
 registration of CTAs and CPOs, 5:85
 regulatory changes in, 3:351
 regulatory constraints in, 3:325
 residence–source conflicts, 2:307
 stock returns and monetary policy in, 6:80
 taxation
 corporate estate tax freeze, 2:338
 domestic tax relief, 2:308
 exit taxes, 2:306–307
 generation-skipping transfer tax, 2:296
 interest income taxation, 2:233; 3:340
 spousal exemptions for estate tax, 2:297
 on stock purchases, 2:323
 taxable gifts, 2:291
 tax-advantaged savings accounts, 2:246
 taxation of citizens and residents, 2:305
 tax-free gifts, 2:289
 tax rates, 2:180
 tax regime, 2:231, 347
 tax treatment of irrevocable trusts, 2:183
 wealth taxes, 2:306
 TFP growth, 3:71
 TRACE, 4:94–95
 trade partners, 3:83, 84
 upstairs markets, 6:17n.8
 value stock in, 2:144
 venture capital activity in, 5:36
 volatility index in, 3:357
 weekend effect, 2:139
 yield curves, 2:515–516; 6:81
- US Commerce Department, 3:84
- US Commodity Futures Trading Commission (CFTC), 3:411; 4:103; 5:85
- US Consumer Price Index (CPI) and CAPE, 3:153, 154
 and principal redemption amount, 4:50
 and return objectives of endowments, 2:492–493
- US Consumer Price Index for All Urban Consumers (CPI-U), 3:13, 44
- US dollar
 benefits of currency exposure for, 3:390–391
 converting yen into, 5:375–376
 currency code, 3:375
 in currency pairs, 3:103, 376, 377, 378n.7, 411, 428
 dual-currency bonds in, 5:377–380
 as haven currency, 3:439
 and interest rate derivatives, 4:73–74
 as swap counter payment, 4:275
 swap curve, 4:202
 and yen carry trade, 4:135
 and yield curve trades, 4:178
- US Federal Reserve. *see* Federal Reserve
- US Generally Accepted Accounting Principles (US GAAP)
 capital gains for non-life insurance companies, 2:514
 and GIPS, 6:262
 insurance companies, 2:501
 pension expense, 2:469
- US Securities and Exchange Commission (SEC), 3:468; 4:103; 5:169

- US Treasury
 - maturity premium for debt, 3:37
 - TIPS issued by, 4:50
- US Treasury bills (T-bills)
 - in capital market forecasts, 3:44
 - nominal risk-free interest rate, 3:36
 - in rising vs. declining markets, 6:230
 - in semiactive equity investing, 4:303
 - Sharpe ratio of, 5:190
 - yield curve of T-bonds and, 3:55
- US Treasury bond futures, 5:221
- US Treasury bonds (T-bonds)
 - Federal Reserve repurchase program, 4:198
 - and Fed model, 3:35, 149
 - FNMA MBS vs., 4:168
 - and I-spread, 4:202
 - MBS volumes vs., 4:237
 - portfolio structures for, 4:162–164
 - yield curve of T-bills and, 3:55
 - yield curve strategies with options, 4:164–169
- US Treasury Inflation-Protected Securities (TIPS), 2:390; 3:92–93; 4:50
- US Treasury note (T-note) futures contracts
 - for contingent immunization, 4:77
 - as derivatives overlay, 4:73–76
 - and duration management, 4:138
 - for interest rate immunization, 4:73–76
 - and liability-driven investing, 4:82
- US Treasury notes (T-notes)
 - in fed model, 3:150
 - FNMA MBS vs., 4:168–169
 - and yield curve dynamics, 4:125–129
- US Treasury securities
 - in duration-neutral portfolio, 4:169
 - and Fed model, 3:147–149
 - interest rates and prices, 6:162
 - and US credit markets, 4:227
- US Treasury STRIPS (Separate Trading of Registered Interest and Principal of Securities), 4:90; 5:219n.4
- unit-linked life insurance, 2:500n.20
- unity constraint, 3:238
- universal banking, 2:519–520
- universal life insurance, 2:407, 500n.20
- universes, manager, 3:468–469
- University of Michigan Survey, 3:104
- University of Virginia Investment Management Company (UVMICO), 5:10–11
- unrealized capital gains, 3:341
- unrealized multiple, 6:265, 292
- unrealized profit/loss, 6:23, 25
- unrelated business income, 2:487, 495
- unskilled mutual funds, 2:58–59
- UNSNA. *see* United Nations System of National Accounts
- unsolicited trading requests, 1:92–93
- unstructured modeling, 3:80n.65
- updates, 1:94, 131–132
- up-from-cost sell discipline, 4:302
- upstairs markets, 6:17n.8
- uptick rules, 4:275
- urgency of the trade, 6:33
- Uruguay, 2:304; 3:43
- US BIG Bond Index. *see* Citigroup Broad Investment-Grade Bond Index
- USD/AUD. *see* Aussie-dollar market
- USD/EUR. *see* Euro-dollar market
- USD/GBP. *see* Sterling-dollar market
- USD/NZD currency pair, 3:428
- US GAAP. *see* US Generally Accepted Accounting Principles
- utility
 - defined, 2:8
 - maximization of, 2:9, 15–17
 - and rational economic man, 2:11–12
 - subjected expected, 2:21–22
- utility curves, 3:242
- utility function
 - double inflection, 2:17
 - power, 3:202
 - of wealth, 2:13–14
- utility theory, 3:201–202
 - and indifference curve analysis, 2:16–17
 - prospect theory vs., 2:27
 - risk aversion in, 2:13
 - in traditional finance, 2:8–9
 - utility function of wealth, 2:13–14
- UVMICO. *see* University of Virginia Investment Management Company
- V
- V2X, 3:357
- valid benchmarks
 - impact of, 3:464
 - manager universes as, 6:140–141
 - properties of, 6:135–136
 - requirements of, 3:465
 - tests of, 3:480
- valuation. *see also* equity market valuation
 - disclosure of methods, 1:257
 - and endowment bias, 2:78–79
 - GIPS principles related to, 6:270–273
 - of insurance company investments, 2:508
 - and interest rate risk, 2:501
 - in macro attribution, 6:149–150
 - Performance and Valuation (AMC Part E), 1:243, 254–255
 - of real estate, 6:260
- valuation discounts, 2:297–298
- valuation-level sell discipline, 4:302
- valuation reserve, 2:501n.21
- value-added real estate strategies, 6:261
- value-added taxes, 2:226
- value at expiration
 - bear spread, 5:296–298
 - box spread, 5:310, 311
 - bull spread, 5:293, 295
 - butterfly spread, 5:299–300, 302
 - call options, 5:279–281, 285
 - collars, 5:306
 - covered calls, 5:286, 287
 - protective puts, 5:290, 291
 - put options, 5:282–285
 - straddles, 5:307–309
- value at risk (VaR)
 - advantages and limitations, 5:168–170
 - conditional, 3:365–366
 - credit, 5:174
 - elements, 5:154–155
 - extensions and supplements, 5:170–171
 - and framing bias, 3:365
 - incremental, 5:170
 - measuring, 5:153–171
 - analytical method, 5:155–160
 - historical method, 5:160–166
 - Monte Carlo simulation method, 5:167–168
 - position and aggregate, 2:521
 - probability levels and time horizons, 5:158–159
 - and risk budgeting, 5:183
 - surplus at risk, 5:168
 - tail, 5:170
- value factor, 3:358
- value investment style, 4:277–280
 - defined, 3:469n.9; 4:276
 - and fundamental anomalies, 2:33–34
 - growth vs., 4:277–278
 - long-only investing with, 5:98
 - Microsoft and, 4:278
 - sell disciplines, 4:302
- Value Line Arithmetic Composite Index, 4:268
- Value Line Composite Average, 3:474
- value managers, 3:467
- value-motivated traders, 6:34, 35
- values, CFA Institute, 1:15
- value stocks, performance of, 2:144
- value-weighted indexes, 4:261, 262, 264–265
- Vanguard Admiral class shares, 4:271
- Vanguard Group, Inc., 4:259, 271
- Vanguard Investments Australia, 2:58
- Vanguard Mid-Cap Growth Fund, 4:294–295
- Vanguard mutual funds, 5:184–185
- vanilla options, 3:424
- VaR. *see* value at risk
- VaR-based position limits, 5:192
- variable annuities
 - advantages and disadvantages of fixed and, 2:426–428
 - deferred, 2:423–424
 - immediate, 2:424
- variable life insurance, 2:500n.20
- variable prepaid forward strategy, 6:77
- variables, endogenous vs. exogenous, 3:20
- variable universal life insurance, 2:500n.20
- variance. *see also* mean–variance optimization (MVO)
 - of domestic-currency returns, 3:384–385
 - mean–variance approach, 2:36, 125; 3:24
 - minimum-variance hedge ratio, 3:431–433
- variance–covariance method, 5:155–160
- VC. *see* venture capital
- VC funds. *see* venture capital funds
- VCTs. *see* venture capital trusts
- VDAX-NEW, 3:357
- vega
 - defined, 3:404
 - and market risk, 5:152
 - and volatility risk, 5:343
 - in volatility trading, 3:405
- Venezuela, 2:231, 304, 347

- venture capital (VC). *see also* private equity
 defined, 5:28, 32
 demand for, 5:30–31
 direct venture capital investment, 5:34
 for IPOs, 5:30
 supply of, 5:31–34
 venture capital firms, 5:30n.41
 venture capital funds (VC funds), 5:32, 40–41
 venture capitalists, 5:32
 venture capital trusts (VCTs), 5:32
 VE Post Venture Capital Index, 3:44
 verification
 GIPS definition, 6:275n.48, 293
 GIPS provisions on, 6:275–280
 implementation of, 6:275–276, 278
 preparing for, 6:278
 verification firms, selecting, 6:275–276
 Verification/Practitioner Subcommittee, 6:212
 verification report, 6:275–277, 293
 Verizon, 4:211–212
 Vernley, Mark (case study), 1:198–202
 vested (term), 2:383n.1, 464n.1
 Viceira, Luis M., 3:390–391
 Vienna Convention on the Law Treaties, 2:309
 Vietnam, 2:231, 347
 vintage effects, hedge fund, 5:76
 vintage year, 5:38; 6:265, 293
 violations of ethical standards
 case studies, 1:197–237
 consultants, 1:198–202
 Pearl Investment Management, 1:202–213
 practice problems, 1:214–230
 solutions to problems, 1:231–237
 dissociating from, 1:27–28
 and legal violations, 1:204
 lists of, 1:54
 notification of known, 1:27
 by others, participation or association with, 1:23
 sanctions, 1:15
 supervisor's response to, 1:121
 VIX, 3:357
 volatility
 of benefits, for annuities, 2:427
 in binomial model, 5:343
 in Black–Scholes–Merton pricing option, 5:152, 343
 cash flow, 2:502
 downside, 5:79–80
 of emerging markets, 3:77
 and expected value of returns, 2:198, 199
 of hedge funds, 5:79–80
 and historical analysis, 3:17
 of human capital, 2:441
 and market risk, 5:151–152
 and measure of wealth, 2:163
 portfolio, 2:251
 in portfolio rebalancing, 3:313
 of portfolio returns, 3:384–385
 price, 1:70–72; 2:176
 reducing risk factor exposure to, 3:201
 reward-to-volatility, 6:168
 and sustainability of spending rates, 2:285, 287
 volatility clustering, 3:27
 volatility index, 3:357
 volatility management, 4:222
 volatility overlay programs, 3:406
 volatility pumping, 3:312n.44
 volatility risk, 5:343
 volatility smile, 5:196
 volatility trading, currency management and, 3:404–409
 Volcker, Paul, 3:60; 6:80
 Volcker Rule, 4:229
 volume, trading, 1:70, 246; 4:226–227
 volume-weighted average price (VWAP), 6:23–24, 27–28
 volume-weighted average price (VWAP) strategy, 6:43
 volunteers, compromising of CFA Institute integrity, 1:169
 voting
 proxy voting policies, 1:76–78
 shareholder voting policies, 1:257
 voting control, 2:328
 culture capital, 5:99
 culture funds, 5:99
 culture investors, 5:99
W
 waiting period, of disability income insurance, 2:418
 waiver of premium clause, 2:418
 Wall Street Reform and Consumer Protection Act (2010), 5:56
 Wal-Mart Stores
 equity market data, 4:263–266
 free-float adjustments, 4:261n.10
 weak-form EMH, 2:29–31
 wealth
 after-tax, 2:225–226
 and behaviorally modified asset allocation, 2:84–86
 changes in, 6:68, 72–77
 cognitive biases of low-wealth-level investors, 2:92–96
 discretionary, 2:279n.11, 335n.4
 emotional biases of high-wealth level investors, 2:88–92
 measure of wealth classifications, 2:163
 net, 2:390, 397–400
 predicting future, 3:250
 source of wealth classifications, 2:162
 utility function of, 2:13–14
 wealth concentration, 2:327
 wealth effect, 3:69–70
 wealth management. *see* private wealth management
 wealth relative, 6:127–128
 wealth taxes, 2:238–239
 and cross-border estate planning, 2:306
 and estate planning, 2:276–277
 in global tax structures, 2:226
 and tax planning, 2:232
 wealth transfers, managing concentrated positions with, 2:337–340
 wealth transfer taxes, 2:182
 and concentrated positions, 2:339–340
 and cross-border estate planning, 2:306
 and estate planning, 2:276–277
 and investment policy statements, 2:179
 webpages, maintaining, 1:47
 weekend effect, 2:139
 weighting scheme, for manager-based hedge fund indexes, 5:62
 Wells Fargo, 4:258–259
 Wen Jiabao, 3:130
 Western Europe. *see also specific countries*
 managed care facilities, 2:177
 universal banking, 2:519; 3:131
 Westpac, 4:194
 whistleblowing, 1:108, 113
 whole life insurance, 2:406–407, 499n.19
 Wilcox, Jarrod, 2:335n.4
 wills
 defined, 2:273
 and legal system, 2:274–276
 and trusts, 2:183
 Wilshire 5000 Index
 and adjustments to composite-specific minimum asset levels, 6:244
 assessing returns with, 6:187, 195
 as broad-market index, 6:136
 diversification with, 5:382
 investability of, 3:475
 value, growth, and size subsets of, 3:469
 Wilshire Associates
 real estate benchmarks by, 5:16, 17
 subsets of 5000 Index by, 3:469
 and TUCS database, 6:210
 Winkelman, Kurt, 3:267
 Within-Sector Selection return, 6:158–159
 won, Korean, 3:375, 440
 workforce age, 2:471–472
 working capital allocations, 5:185
 World Bank, 3:77, 104
 WorldCom, Inc., 2:122; 5:99
 World Trade Center bombing (1993), 5:145
 worldwide economic indicators, 3:82
 worst-case scenario analysis, 5:172
 Wrap Fee/Separately Managed Account (SMA) Portfolios (GIPS Section 1.8), 6:217, 268–270
 Wright, Christopher, 5:9n.2
 writing, after exam period, 1:168
 written material, brought into exam room, 1:167
Y
 Yale model, 3:308–309
 Yale University Investments Office, 3:308–309
 Yardeni, Edward, 3:147
 Yardeni model, 3:150–153, 160–162
 yen, Japanese
 currency code, 3:375
 currency exposure for, 3:391n.11; 4:223
 in currency pairs, 3:376, 377, 378n.7, 411
 in currency swaps, 5:375–376
 as haven currency, 3:439
 yen carry trade, 4:135

- yield(s)
 bond
 and annuity pricing, 2:426
 covered, 4:240
 and credit spread, 4:200–201
 decomposing expected returns, 4:23–26
 and expected return, 4:23
 and interest rate risk, 4:195
 and liquidity, 4:20, 21
 nominal, 3:76–77
 price and, 5:219–221
 real, 3:91, 93
 yield to maturity, 3:35
 yield to worst, 3:35n.38
 bond, and annuity pricing, 2:426
 cash flow
 in interest rate immunization for multiple liabilities, 4:69–71, 73
 in interest rate immunization for single liability, 4:55–62
 of laddered bond portfolios, 4:108
 convenience, 5:52
 dividend
 in bottom-up approach, 4:322
 in holdings-based style analysis, 4:288, 290
 in value investment style, 4:280
 horizon, 4:58
 income, for immediate fixed annuities, 2:424–425
 negative, 4:127
 nominal bond, 3:76–77
 portfolio, 2:503, 504, 515
 real, 3:91, 93; 6:82
 repurchase, 3:33
 roll, 3:414–416
 yield beta, 5:222, 228n.17
 Yield Book, 4:155
 yield curve(s), 2:515–516
 defined, 4:124
 and duration matching, 4:13
 dynamics of, 4:125–129
 and immunization, 4:59–62
 and interest rate exposure, 4:221
 and laddered bond portfolios, 4:107
 and monetary/fiscal policy, 3:68
 on-the-run, 4:124–127
 and portfolio monitoring, 6:81–82
 as predictor of economic growth, 3:55
 slope of, 4:128, 135–145
 twists in, 4:61–62
 yield curve strategies, 4:123–190
 about, 4:123–124
 for changes in market level/slope/curvature, 4:135–145
 bullet and barbell structures, 4:141–145
 buying convexity, 4:140–141
 duration management, 4:135–140
 duration and convexity, 4:130–132
 duration-neutral portfolios in multiple curve environments, 4:169–178
 baseline portfolio, 4:169
 extreme barbell vs. laddered portfolio, 4:172–173
 extreme bullet, 4:173–174
 extreme vs. less extreme barbell portfolios, 4:175–177
 less extreme barbell portfolio vs. laddered portfolio, 4:174–175
 yield curve scenarios, 4:170–172
 foundational concepts, 4:124–132
 duration and convexity, 4:130–132
 yield curve dynamics, 4:125–129
 framework for evaluating yield curve trades, 4:178–184
 major types, 4:132–146
 positioning strategy, 4:146–169
 in anticipation of a change in interest rates, 4:150–151
 in anticipation of parallel upward shift in yield curve, 4:146–150
 duration-neutral bullet/barbell/butterfly performance, 4:151–164
 using options, 4:164–169
 practice problems, 4:187–188
 riding the yield curve, 4:133
 selling convexity, 4:134
 solutions to problems, 4:189–190
 for stable yield curve, 4:133–135
 buy and hold, 4:133
 carry trades, 4:134–135
 riding the yield curve, 4:133
 selling convexity, 4:134
 yield duration. *see* duration
 yield enhancement, 2:354
 yield income, 4:23
 yield spread, 4:24
 yield to maturity (YTM), bond, 3:35
 yield to worst, 3:35n.38
 yuan, Chinese, 3:375, 440; 4:236
- Z**
zakat, 2:231, 347
 zero-alpha mutual funds, 2:58–59
 zero-based budgeting process, 6:180
 zero-cost collars, 5:304
 zero-coupon bonds, 4:52, 131
 zero lower bound, 3:65
 zero-premium collars, 2:349–350; 6:77
 zero risk investments, 5:190
 zero-sum derivatives markets, 5:90
 zero-sum game, trading as, 6:49
 zero weight (term), 4:212
 Zheng, Hu, and Bigsten (ZHB)
 projections, 3:130–131
 Z-spread, 4:203, 211–212
 Zurich, Switzerland, 2:310–311
 Zweig, Martin, 6:80

