

# Index

- ad-hoc and privately eligible collateral, 24, 94–96
- agency debt, 56–58, 233–235
- aggregate liquidity needs
  - full allotment policy and, 199–206
  - full reserve banking and, 269–273
- arbitrage
  - collateral framework and, 183–185
  - full allotment policy and, 205–206
- Ashcraft, Adam, 14–17, 20
- asset-backed securities (ABS), 10, 23, 44–45
  - credit standards for, 107–109
  - euro area bailout and, 196–197
  - expanded purchase of, 233–235
  - full allotment policy and purchase of, 207–212
  - haircut effects on, 60–79, 82–84
  - price volatility for, 199, 200
  - ratings for, 80–82
  - second-highest rule for, 109–110
- assets
  - bias toward illiquid collateral as, 185–189
  - in central bank balance sheets, 11–14, 49–51
  - collateralized borrowing and, 14–17, 52–56, 60–62, 256–262
  - default probabilities of, 65
  - financial crisis of 2008 and price of, 7–11
  - financing for purchase of, 236–242
  - illiquid vs. liquid, 19–23
  - liquidity pull-back and, 5–6
  - price volatility for, 29–32, 199–206
  - purchase programs for, 192–197, 199, 207–212, 214, 223, 233–235
  - targeted purchase of, 198–199
- auctions
  - discriminatory auctions, 189–191
  - refinancing operations and, 42–45
- Austria, bank stock performance in, 216–223
- automobile corporations, banking subsidiaries of, 146–147
- Bagehot, Walter, 18, 277–278
- bailouts
  - buying time and free-riding problems with, 207–212
  - collateral framework facilitation of, 19–23
  - costs and benefits of, 212–214, 253–255
  - euro area integration of, 245–247
  - full allotment policy and, 205–206
  - Italian government guarantors and, 136–141
  - negotiations history for, 225–230
  - overview of, 192–194
  - political motivations for, 209–212
  - ratings exemptions and, 112–114
- balance sheets
  - asset purchase programs and TLTROs, impact on, 196–197
  - central banks, 11–14, 49–51
  - collateral framework and, 14–17
  - full allotment policy and, 203–205
  - illiquid collateral and asymmetry among, 185–189
  - sovereign bond purchases and, 236–242
- Banca d'Italia, 241–242, 267
- bank bonds
  - collateralization using, 54–56
  - economic stimulus through purchase of, 242–244

## 314 INDEX

- in Greece, 143–146
- haircut policy and, 60–62
- banking institutions
  - CCP repos and, 266–269
  - corporate guarantees and, 146–147
  - defaults by, 261–262
  - full allotment policy and, 183–185, 199–206
  - German guarantees and, 142–143
  - government guarantors and, 132–136, 209–212
  - illiquid collateral bias and, 185–189
  - indirect bailouts of, 212–214
  - Italian government guarantors for, 136–141
  - monetary policy and, 1–3, 42–45
  - own-use collateral and, 178–182
  - ratings for, 87–93
  - stock spread analysis of, 216–223
- Bank of Canada, balance sheets, 11–14
- Bank of England, balance sheets, 11–14
- Bank of Japan, balance sheets, 11–14
- Basel II and III bank regulation frameworks, 178
- Belgium
  - fiscal indicators for, 225–230
  - national central bank in, 241–242
- benchmark allotment, 42
- BGN pricing source, 161–162
- Bhattacharya, Sudipto, 20, 205–206
- bias in market discipline, 183–185
- bid price, marketable collateral, 149–162
- bilateral repos, 266–269
- Bindseil, Ulrich, 6–7, 25, 189–191, 257
- Blanchard, Olivier J., 19
- Bloomberg data
  - asset classes and, 29–32
  - bond yield and price data from, 117
  - eligible marketable collateral pricing and, 149–162
  - event study of bank stocks using, 216–223
  - Italian government guarantees data, 136–141
  - pivotal ratings data from, 128–131
  - pricing data, 29–32, 166–167
  - on securities, 263–265
- Bootle, Roger, 209–212
- borrowing
  - collateralization of, 14–17
  - haircut-linked cost increases for, 256–262
- bubbles, collateral frameworks and risk of, 19–23
- Buiter, Willem H., 14–17
- Bundesbank, ECB Pooling Baskets and, 87–93
- buying time approach, full allotment policy and, 207–212
- “by count” numbers
  - pledged collateral, 162–166
  - theoretical prices, liquidity category, 159, 160
- “by value” numbers, theoretical prices, liquidity category, 159, 160
- Calomiris, Charles W., 65, 92–93
- capital key (ECB), asset purchase program expansion and, 233–235
- central banks
  - asset purchase financing and, 236–242
  - balance sheets, 11–14, 49–51
  - bills, monetary policy and, 238–240
  - collateral frameworks and, 274–280
  - debt certificates issued by, 238–240
  - fixed rate tender offers, 189–191
  - full allotment policy and, 199–206
  - haircut policies and, 62
  - illiquid collateral bias and, 183–189
  - liquidity pull-back and, 4–6
  - monetary policies of, 1–3, 194–199
  - MRO/LTROs and money injection in, 45–49
- central counterparty (CCP) repos
  - eligibility of collateral and, 87–93
  - interbank market and, 266–269
  - low-quality collateral bias and, 183–185
- Chapman, James T. E., 14–17, 20
- Chesterton, G. K., xiii–xiv
- Chicago Plan, 269–273
- Chiu, Jonathan, 14–17, 20
- Cline, William R., 203–205
- Cochrane, John H., 272–273
- Coeuré, Benoît, 188–189
- collateral
  - asset classes of, 52–54

- eligibility and usage patterns for, 23–26
- Eurosystem holdings of, 49–51
- financial markets and, 14–17
- fundamental problems with, 263–265
- government guarantees and ratings for, 94–96
- guarantees and distribution of, 94–96, 132–136
- illiquidity of, 19–23
- liquidity effects on, 19–23
- marketable collateral, pricing rules, 149–162
- pledged collateral, 162–166
- usage trends for, 54–56, 162–166
- value determination for, 26–28, 32–34, 94–96, 149–162
- collateral central counterparty (CCP)
  - repo contracts, 14–17, 87–93, 183–185
- collateral framework
  - bias toward illiquid collateral and, 185–189
  - ECB rules for, 59–63
  - euro-area securities, 49–51
  - financial markets and, 14–17
  - full reserve banking and, 269–273
  - future challenges and issues for, 274–280
  - general and temporary frameworks, 60–62
  - interbank market and, 14–17, 266–269
  - liquidity pull-back and, 6–7
  - market discipline and, 19–23, 178–191
  - market forces in, 32–34, 189–191
  - monetary policy and, 1–3, 49–51, 194–199
  - opacity of, xiii–xiv
  - overview, 18–19
  - potential impact of, 19–23
  - ratings role in, 94–96, 105–107
  - sovereign debt and, 256–262
  - value determination in, 26–28
- collateralized loans, liquidity injection through, 35–45
- constrained-optimal bailouts, 205–206
- corporations
  - guarantees, cheap funding
    - accessibility and, 146–147
    - ratings for, 87–93
- counterparty risk
  - bias toward illiquid collateral and, 185–189
  - haircut policy and, 78–79, 84–85
  - interbank market and, 266–269
- coupon effects
  - haircut policy and, 65
  - liquidity categories and, 78
  - sovereign ratings and, 119–132
- covered bonds, 10
  - euro area bailout and, 196–197
  - expanded asset purchase program and, 233–235
  - haircuts for, 82–84
  - purchase program for, 194–199
- Craig, Paul, 248, 249
- credibility issues
  - collateral framework and, 274–280
  - limits on sovereignty and, 245–247
  - sovereign debt and, 241–242
- credit claims, haircut variations over time for, 79–85
- credit institutions and standards
  - Eurosystem Credit Assessment Framework, 105–107
  - expansion of ratings agencies and relaxation of, 107–109
  - German guarantees and, 142–143
  - haircut policies and, 60–62, 281–282
  - harmonized rating scale, 109–110, 282–284
  - Italian government guarantors and, 136–141
  - ratings rules and, 96–112, 281–282
- Cruz Villalón, Pedro (Advocate General), 224, 225, 231–233, 236–242
- Cyprus
  - bailout funds for, 212–214
  - haircut rules for, 85–87, 143–146, 288–292
  - ratings exemption for, 94–96, 112–114, 212–214, 288–292
  - sovereign debt crisis in, 188–189, 225–230
  - standard minimum ratings requirements for, 31–32

## 316 INDEX

- daily outstanding amounts, monetary base and, 45–49
- daily reserve requirements, full allotment policy and, 199–206
- debt certificates, central bank issuance of, 238–240
- Debt Instruments Backed by Eligible Credit Claims (DECCs), 281–282
- debt-to-GDP ratio
  - euro area inclusion and, 248–256
  - euro crisis and, 225–230
  - in Japan, 237–238
- default probabilities, asset classes and, 65
- deficit threshold violations
  - credibility of euro area and, 248–256
  - euro crisis and, 225–230
  - haircuts linked to, 256–262
- deficit-to-GDP ratio, euro crisis and, 225–230
- Denmark, 225–230
- deposit insurance, 268–269
- deposit rates
  - euro crisis and, 194–199
  - full allotment policy and, 199–206
  - full reserve banking and, 269–273
- Diamond, Douglas W., 269–273
- discriminatory auctions, 42–45, 189–191
- Dominion Bond Rating Services (DBRS), 30–31, 94–96, 107–109
  - extra collateral value in pivotal ratings of, 128–131
  - harmonized rating scale and, 109–110
  - long-term scales and scoring system, 146–147
  - sovereign ratings by, 119–132
  - Spanish bond rating by, 115–118
  - yearly average score comparisons with other agencies, 126–128
- Draghi, Mario, xiii–xiv, 9–11, 192–199, 214–223, 233–235, 242–244, 265, 277–278
- Duffie, Darrell, 14–17
- Dybvig, Philip H., 269–273
- Economic Adjustment Programmes (EAP)
  - haircut policy and, 85–87
  - ratings exemptions and, 112–114
- EFSS program, 207–212
- eligibility criteria for collateral frameworks, 23–26
  - asset classes, 52–54
  - changes to, 80–82, 281–282
  - ECB guidelines for, 60–62
  - guarantees and, 132–136
  - non-regulated market inclusion in, 171–182
  - own-use collateral, 168–170
  - in primary/secondary repo markets, 87–93
  - rating agency ratings and, 31–32, 94–96
  - rating categories and, 79–85
  - weakening of, 32
- Eliot, T. S., 245
- emergency liquidity assistance (ELA), 146, 292
- Eurex Clearing Margining process, 87–93
  - CCP repos and, 266–269
- Eurex GC Pooling ECB Baskets, 25, 29–32, 87–93, 266–269
- Euribor-Eonia swap spread
  - full allotment policy and, 199–206
  - liquidity effects and, 8–9
  - swap rates, 118
- euro area
  - asset purchase and euro preservation in, 241–242
  - background on crisis in, 225–230
  - bailout benefits and drawbacks in, 212–214
  - bond purchases in, 242–244
  - calendar effects on, 6–7
  - collateral framework in, xiii–xiv, 256–262, 274–280
  - credibility issues for, 245–247
  - eligibility guidelines for collateral in, 60–62
  - endgame of crisis in, 224–244
  - event study of bank stocks in, 216–223, 274–280
  - fiscal indicators for member states in, 225–230
  - free-rider problem in, 207–212
  - full allotment policy and fragility of, 199–206

- gamesmanship in, 253–255
- heterogeneity in securitization
  - products of, 263–265
- inequality in stock returns in, 32
- Italy's inclusion in, 248–256
- monetary policy event study of, 214–223
- negotiations over bailouts in, 225–230
- Outright Monetary Transactions
  - mechanism and, 9–11
- overview of bailouts in, 192–194
- possible breakup of, 22–23, 211
- ratings comparisons in, 94–96
- securities of, 49–51
- segmentation within, 188–189
- sovereign ratings for countries in, 119–132
- European Banking Union, 207–212, 261–262
- European Central Bank (ECB), xiii–xiv
  - asset classes of, 52–54
  - asset purchase program expansion
    - by, 233–235
  - bailout measures of, 192–194
  - collateral framework in, 14–17, 274–280
  - collective structure of, 1–3
  - Credit Quality Steps of, 78, 109–110
  - debt certificates issued by, 238–240
  - Economic Adjustment Programmes
    - and, 85–87
  - fixed rate tender offers and, 43–44, 189–191
  - foreign currency reverse operations, 42
  - haircut policy and, 59–63, 92–93, 178–182, 256–262, 281–282, 284–287
  - liquidity policies in, 9–11, 199–206
  - monetary policies of, 194–199, 214–223, 236–242
  - non-regulated markets accepted by, 171–177
  - own-use collateral and, 168–170
  - ratings agencies expansion and, 107–109
  - ratings rules and, 94–96, 112–114, 281–282
  - reverse operations for liquidity
    - injection, 35–45
  - sovereign debt and, 197–198, 242–244, 256–262
  - standardization of collateral and, 265
  - target rate, 42
  - theoretical pricing by, 183–185
- European Commission (EC)
  - Economic Adjustment Programmes
    - and, 85–87
  - German guarantees and, 142–143
  - Greece reprimanded by, 250–253
  - ratings exemptions and, 112–114
- European Court of Justice (ECJ), 195–196, 224, 225, 231–233, 236–242
- European Economic Area (EEA), 60–62
- European Financial Stability
  - Facility/European Stability
    - Mechanism, 9–11, 43–44
  - ratings exemptions and, 112–114
- European Stability Mechanism (ESM), 292
- European Union
  - bailout support from, 112–114
  - euro area stock performance
    - compared with stocks of, 216–223
  - possible breakup of, 22–23
  - “STEP market” in, 171–177
- Eurostat, 248–256
- Eurosystem
  - asset and risk transfer to, 194–199
  - asset purchase financing and, 236–242
  - balance sheets, 11–14, 49–51
  - bond purchases by, 10
  - collateral framework in, 14–17, 32–34, 274–282
  - collateral usage in, 54–56
  - collective structure of, 1–3
  - corporate guaranteed securities in, 146–147
  - debt certificates for, 238–240
  - ECB Pooling Baskets and, 87–93
  - eligibility criteria for collateral in, 96–112
  - fixed-term deposit in, haircut for, 80–82

## 318 INDEX

- guidelines for collateral framework
  - of, 60–62
- haircuts in, 29–32, 178–182
- legality of sovereign bond purchases
  - by, 231–233
- liquidity injections vs. aggregate
  - liquidity in, 199–206
- low-quality collateral in, 25
- market and theoretical prices in,
  - 149–167
- mezzanine tranches purchased by,
  - 196–197
- monetary policy instruments over
  - time, 35–45
- non-regulated market securities in,
  - 171–177
- open market operations of, 199–206
- ratings process in, 30–31, 107–109
- repo collateral eligibility and, 56–58
- theoretical pricing in, 149–162
- Eurosystem Credit Assessment
  - Framework (ECAAF), 105–107
- Ewerhart, Christian, 25–26, 266–269
- excess liquidity, full allotment policy
  - and, 199–206
- exemptions from ratings, 31–32,
  - 112–114
- external ratings
  - collateral eligibility and, 23–26
  - eligibility criteria for collateral and,
    - 94–96
  - haircut policy and, 178–182
  - longer-dated bonds, 115–118
  - non-marketable assets and, 178–182
  - of issuers and guarantors, 105–107
  - role of, 29–32
- extra collateral value
  - in DBRS pivotal ratings, 128–131
  - Italian government guarantors
    - impact on, 136–141
- Fecht, Falko, 203–206
- federal funds rate, calendar effects on,
  - 6–7
- Federal Reserve System
  - balance sheets, 11–14
  - eligibility criteria for collateral, 24
- financial crisis of 2008
  - collateral framework and, 274–280
  - EU fiscal indicators prior to, 225–230
  - euro crisis and, 192–194
  - monetary policy and, 7–11, 43–44
  - MROs/LTROs and effect of, 45–49
- financially sound guarantors,
  - guarantee rules and, 104–105
- financial markets
  - collateral framework and, 1–3, 14–17
  - eligibility of collateral criteria and,
    - 82–84, 263–265
  - future challenges for, 274–280
  - illiquid collateral bias and, 185–189
  - monetary policy in, 3–6
- Finland, bank stock performance in,
  - 216–223
- Fischer, Stanley, 19
- Fitch rating agency, 30–31, 88, 94–96,
  - 115–118
  - long-term scales and scoring system,
    - 146–147
  - yearly average score comparisons
    - with other agencies, 126–128
- fixed rate tender mechanism
  - central bank money injection and,
    - 45–49
  - full allotment policy and, 205–206
  - implementation of, 43–44
  - market forces and, 189–191
- fixed-term deposits, collateral
  - eligibility of, 80–84
- FMS Wertmanagement, 142–143
- foreign currency
  - marketable securities, 80–82
  - reverse operations for, 42
- fragmentation of markets
  - asset purchase expansion and,
    - 241–242
  - bias toward illiquid collateral and,
    - 188–189
  - economic impact of, 253–255
  - full allotment policy and, 203–205
- France
  - collateral eligibility criteria in, 32
  - deficit sanctions and, 248–256
  - non-regulated markets and, 171–177
- free-rider problem
  - full allotment policy and, 207–212
  - private liquidity and, 19–23, 185–189
- “French Medium-Term Notes (BMTN)
  - market”, 171–177

- fresh market pricing, marketable collateral and, 149–162
- Friedman, Milton, 4–6, 192–194
- full allotment policy
  - as bailout mechanism, 183–185, 199–206, 212–214
  - buying time and free-riding problems with, 207–212
  - central bank money injection and, 45–49
  - corporate guaranteed securities and, 146–147
  - ECB liquidity and, 9–11, 80–82
  - EU stability and, 19–23
  - illiquid collateral and, 183–185
  - implementation of, 43–44
  - own-use collateral and, 168–170
  - refinancing operations and, 194–199
  - targeted longer-term refinancing operations (TLTROs) and, 196–197
  - weaknesses of, 205–206
- full reserve banking, 269–273
- fundamental liquidity, 118
- funding, corporate guarantees and access to, 146–147
- Gale, Douglas, 21
- gamemanship, in euro area, 253–255
- Gârleanu, Nicolae, 14–17, 20
- Gasperini, Gabriele, 203–205
- General framework document (ECB 2008/13), 80–82, 109–110
  - non-regulated market inclusion in, 171–177
- Georgiou, Andreas, 250–253
- Germany, 225–230
  - asset purchase program expansion and, 233–235
  - bailouts in, 209–212
  - bank stock performance in, 216–223
  - collateral framework politics and, 277–278
  - Constitutional Court of, 195–196
  - deficit sanctions and, 248–256
  - government guarantees in, 31–32, 142–143, 205–206
  - non-regulated markets in, 171–177
  - SGP treaty and, 248–256
  - sovereign debt crisis and, 188–189
- gold prices, bias toward illiquid collateral and, 185–189
- Goodhart, Charles A., 269–273
- government bonds/government debt
  - collateralization using, 54–56
  - DBRS sovereign ratings for, 119–132
  - debt certificates and, 238–240
  - extra collateral value of, 128–131
  - full allotment policy and, 209–212
  - haircut policy and, 60–62, 256–262
  - monetary policy and market for, 236–242
  - monetization of, 237–238
  - primary and secondary market purchases of, 231–233
  - ratings rules for, 87–93, 115–118
- government guarantees
  - distribution of collateral and, 132–136
  - free-rider problem and, 207–212
  - in Germany, 142–143
  - in Greece, 143–146
  - issue ratings and, 105–107
  - in Italy, 136–141
  - market fragmentation and, 188–189
  - mezzanine tranches and, 196–197
  - own-use collateral and, 168–170
  - programme/issuance ratings, 111–112
- Greece
  - bailout funds for, 212–214
  - bank stock performance in, 216–223
  - credibility of eurozone membership, 250–253
  - electoral politics in, 242–247
  - government guarantees in, 143–146
  - haircut policies in, 85–87, 143–146, 212–214, 288–292
  - “jogging depositors” problem in, 203–205
  - national central bank in, 241–242
  - pivotal ratings for, 125–126
  - ratings exemption for, 94–96, 112–114, 143–146, 212–214, 288–292
  - sovereign debt crisis in, 188–189, 225–230, 256–262
  - standard minimum ratings requirements for, 31–32

## 320 INDEX

- gross domestic product (GDP), balance sheets as percentage of, 11–14
- guarantee rules
  - changes over time, 96–112
  - collateral value and, 26–28, 31–32, 207–212
  - corporate guarantees, funding accessibility and, 146–147
  - distribution of collateral and, 132–136
  - in Germany, 142–143
  - in Greece, 143–146
  - haircuts and theoretical price increases and, 183–185
  - issuer ratings and, 105–107
  - in Italy, 136–141
  - market segmentation, 19–23
  - programme/issuance ratings, 111–112
  - ratings boost and, 178–182
  - sovereign ratings and, 94–96
- Guideline of the European Central Bank of 31 August 2000 on monetary policy instruments and procedures of the Eurosystem (ECB 2000/7)*, 60–62
- haircut policy
  - asset classes and, 52–54
  - biases and systemic arbitrage and, 183–185
  - CCP repos and, 266–269
  - collateral frameworks and, 14–17
  - collateral value and, 26–28, 32–34
  - credit standards and, 96–112
  - discriminatory auctions and, 189–191
  - documentation and overview, 59–63
  - evolution of, 29–32
  - extraordinary rules, 85–87, 281–292
  - fundamental liquidity and, 118
  - in Greece, 143–146, 212–214
  - high-quality collateral and, 25–26
  - liquidity categories and, 63–79, 84–85, 166
  - market conditions and, 115–118, 189–191, 274–280
  - marketable assets and, 84–85
  - own-use collateral and, 168–170
  - pledged collateral, 162–166
  - potential impact of, 19–23
  - for primary/secondary repo markets, 87–93
  - proposed modifications for, 256–262
  - ratings exemptions and, 288–292
  - ratings rules and, 79–85, 115–118, 178–182
  - rules for setting, 63–79, 281–292
  - updated table for, 284–287
- Hamilton, James D., 6–7
- harmonized rating scale, 109–110, 282–284
- Hau, Harald, 90–93
- high-quality collateral, bilateral repos and, 25–26
- Holmström, Bengt, 19
- housing
  - as illiquid asset, 19–23
  - mortgage contracts for, 256–262
  - price volatility for, 199, 200
- illiquid assets
  - bias toward, 183–185
  - collateral framework and, 19–23, 263–265
  - costs of, 185–189
  - as eligible collateral, 178–182
  - market forces and, 189–191
- incentives, in collateral frameworks, 19–23
- income disparity, wealth transfer and, 242–244
- inflation, sovereign debt erosion and, 241–242
- inside/outside money distinction, 19
- insolvency regulations, sovereign debt and, 256–262
- inter-sovereign relations, credibility challenges and, 245–247
- interbank market
  - collateral framework and, 14–17, 266–269
  - financial crisis of 2008 and, 7–11
  - liquidity pull-back and, 4–6
  - weakness of, 199–206
- interest rates, monetary policies and, 214–223
- International Monetary Fund (IMF)
  - bailout support from, 112–114



- Economic Adjustment Programmes and, 85–87
- International Securities Identification Number (ISIN)
  - collateral eligibility and, 23–26, 87–93
  - marketable collateral pricing and, 149–162
  - pledged collateral, 162–166
- Ireland
  - bailout funds for, 212–214
  - extra collateral value of bonds in, 128–131
  - “jogging depositors” problem in, 203–205
  - ratings exemption for, 112–114, 212–214
  - sovereign debt crisis in, 188–189, 225–230
  - sovereign ratings for, 125–126
  - standard minimum ratings requirements for, 31–32
- issuer ratings
  - for German guarantees, 142–143
  - government bonds, 105–107
  - government guarantors and, 132–136
  - Italian government guarantors and, 136–141
  - programme/issuance ratings, 111–112
- Italy
  - asset purchase program expansion and, 233–235
  - bank stock performance in, 216–223
  - bond ratings for, 115–118
  - collateral eligibility criteria in, 32
  - credibility of eurozone membership, 248–256
  - extra collateral value of bonds in, 128–131
  - government guarantees in, 31–32, 94–96, 136–141, 209–212
  - haircuts for government bonds in, 91–93
  - national central bank in, 241–242
  - non-regulated markets in, 171–177
  - open market operations of banks in, 205–206
  - pre-crisis fiscal indicators in, 225–230
  - sovereign debt in, 203–205
  - sovereign rating for, 94–96
- James, Harold, 255–256
- Japan debt-to-GDP ratio, 237–238
- “jogging depositors” problem, 203–205
- Jordan, Thomas, 13–14, 185–189
- Kiyotaki, Nobuhiro, 19, 185–189
- Knot, Klaas, 13–17, 185–189, 274–278, 280
- Krasner, Stephen, 245–249, 260, 277–278
- Kreditanstalt für Wiederaufbau, 142–143
- Krugman, Paul, 269–273
- Landesbanken/Girozentral, 142–143, 209–212
- Langfield, Sam, 90–93
- Latvia, sovereign ratings for, 125–126
- Lehman bankruptcy, 8–9, 32–34
  - full allotment policy as response to, 183–185, 199–206
  - liquidity markets and, 266–269
  - non-regulated markets in wake of, 171–177
  - sovereign debt following, 225–230
- liquidity categories
  - changes to, 80–82
  - collateral framework and, 263–265
  - Eurosystem liquidity injections vs. aggregate liquidity, 199–206
  - fundamental liquidity, 118
  - guarantee rules and, 132–136
  - as haircut categories, 84–85
  - haircut rules and, 60–79
  - non-regulated markets and, 171–177
  - pledged collateral, 162–166
  - ratings over time, 79–85
  - theoretical pricing and, 149–162
  - updated haircuts for, 284–287
- Liquidity Coverage Ratio, 14–17
- liquidity pull-back, 4–6
  - market inefficiencies and, 6–7
- Lisbon Treaty, 249
- longer-dated bonds
  - ratings for, 115–118
  - repayment of, 198–199

## 322 INDEX

- longer-term refinancing operations (LTROs), *see also* targeted longer-term refinancing operations (TLTROs)
  - corporate guaranteed securities and, 146–147
  - economic effects of, 242–244
  - EU stability and, 19–23
  - euro area bailouts and, 225–230
  - evolution of, 43–44
  - full allotment policy shift from, 207–212
  - as funding supply, 48–49
  - government guarantees and, 31–32
  - haircuts and, 82–84
  - Italian government guarantors and, 136–141, 209–212
  - monetary base and, 45–49
  - non-regulated markets and, 171–177
  - own-use collateral and, 168–170
  - PIIGS sovereign debt and, 203–205
  - refinancing using, 194–199
  - repayment of, 198–199
  - unsecured bank debt and, 171–177
  - weaknesses of, 205–206
- long-term ratings
  - credit standards and, 105–107
  - harmonized rating scale and, 109–110
- loss sharing
  - asset purchase program and lack of, 233–235
  - collateral and, 263–265
- low-quality collateral
  - bias toward, 183–185
  - full allotment policy and eligibility of, 203–205, 207–212
  - increased production of, 23–26
  - potential costs of, 185–189
  - usage fraction of, 56–58
- Maastricht Treaty of 1992, 225, 230, 242–256
- main refinancing operations (MROs), 9–11
  - evolution of, 42–45
  - monetary base and, 45–49
- marketable assets, 60–62
  - haircuts for, 84–85
  - marketable collateral, pricing rules, 149–162
- market discipline
  - biases and systemic arbitrage and, 183–185
  - CCP repos and, 266–269
  - collateral frameworks and, 19–23, 178–191, 274–280
  - costs of undermining, 185–189
  - discriminatory auctions and, 189–191
  - impairment of, 178–182
  - low-quality collateral and, 29–32
  - own-use collateral and, 168–170
  - theoretical prices and, 166–167
  - unsecured markets and, 32–34
- market forces
  - CCP repos and, 266–269
  - in collateral framework, 32–34, 189–191
  - collateral frameworks and, 274–280
  - fundamental liquidity and, 118
  - haircuts and, 115–118
  - liquidity and, 6–7
  - sovereign debt and, 241–242
  - theoretical prices and, 149–167
- Marques-Ibanez, David, 90–93
- Merler, Silvia, 205–206
- Mexico, US oil agreement with, 256–262
- mezzanine tranches, 196–197
- minimum rating requirements, collateral eligibility and, 80–82
- Molico, Miguel, 14–17, 20
- monetary bases (M1/M2)
  - debt certificates and, 238–240
  - full reserve banking and, 269–273
  - refinancing operations and, 45–49
- monetary policies
  - bailouts and, 236–242, 260
  - central banks and, 1–3
  - euro crisis and, 192–194
  - event study in, 214–223
  - financial crisis of 2008 and, 7–11, 32–34
  - financial markets, 3–6
  - future challenges for, 274–280
  - implementation instruments for, 35–45
  - patterns and key issues in, 194–199

- unequal gains in EU policies, 216–223
- monetary shocks, liquidity pull-back and, 4–6
- money markets, financial market and, 6–7
- money stock, central banks' reduction of, 238–240
- Moody's rating agency, 30–31, 94–96, 115–118
  - long-term scales and scoring system, 146–147
  - sovereign ratings and, 119–132
  - yearly average score comparisons with other agencies, 126–128
- Moore, John, 19, 185–189
- moral hazard, inside/outside money distinction and, 19
- mortgage-backed securities, price volatility for, 199, 200
- Myers, Stewart C., 205–206
- national central banks (NCBs)
  - asset classes for, 62
  - asset purchase program and, 233–235, 241–242
  - collateral eligibility and credit standards of, 96–112
  - collateral framework and, 188–189, 274–280
  - defaults by, 261–262
  - German guarantees and, 142–143
  - market fragmentation and, 188–189
  - monetary policy implementation through, 35–45
  - own-use collateral and, 168–170
  - ratings and role of, 105–107
  - sovereign bond purchasing and risk transfer to, 236–242
  - stock indices for, 216–223
- Netherlands
  - bank stock performance in, 216–223
  - non-regulated markets in, 171–177
- nominal balances, central bank control of, 19–23
- non-marketable assets, 60–62
  - as eligible collateral, 178–182
  - full allotment policy and eligibility of, 203–205
  - haircut variations over time for, 79–85
  - ratings for, 80–82
  - theoretical prices, 162–166, 183–185
- non-regulated markets, collateral framework and, 171–177
- non-subordination requirement, haircut policy and, 60–62
- Norges Bank, balance sheets, 11–14
- Nyborg, Kjell G., 8–9, 14–17, 19–23, 25, 42, 185–191, 203–206, 257, 268–269
- Official Journal of the European Union*, 59–63, 80–82
  - harmonized rating scale and, 109–110, 281–292
- open market operations
  - arbitrage and, 205–206
  - collateral framework and, 189–191
  - sovereign bond purchases and, 236–242
  - volume of, 199–206
- opportunity costs, for eligible collateral, 178–182, 257
- organized hypocrisy theory
  - collateralization of sovereign debt and, 260
  - credibility of euro area and, 248–256
- Östberg, Per, 4–6, 8–9, 19–23
- Outright Monetary Transactions (OMT) program, 9–11, 43–44, 194–199, 207–212, 224, 225, 231–242
- overnight index swap rate
  - full allotment policy and, 199–206
  - reserve supply and, 6–7
- own-use collateral
  - corporate guaranteed securities and, 146–147
  - defined, 168–170
  - haircut policy and, 78–79, 84–85
  - low-quality collateral as, 183–185
  - “own-use” collateral, 32–34, 64
- Pedersen, Lasse H., 14–17, 20
- People's Bank of China, balance sheets, 11–14
- Philippon, Thomas, 205–206
- Phillips, Ronnie J., 269–273

## 324 INDEX

- PIIGS countries
  - bailouts and, 212–214
  - sovereign debt crisis in, 203–205
- Piraeus Bank, 143–146
- Pisani-Ferry, Jean, 205–206
- pivotal ratings
  - extra collateral value of, 128–131
  - rules for determining, 119–132
- pledged collateral, 162–166
- ratio of aggregate liquidity to, 178–182
- politics
  - bailouts and role of, 209–212
  - collateral framework and, 274–280
  - of eurozone establishment, 255–256
  - monetary policies and, 242–244
  - of sovereign debt, 241–242
  - sovereignty issues in, 245–247
- pooling systems, collateralization through, 35–45, 266–269
- Portugal
  - bailout funds for, 212–214
  - extra collateral value of bonds in, 128–131
  - government securities ratings for, 109–110
  - haircut rules for, 143–146
  - “jogging depositors” problem in, 203–205
  - ratings exemption for, 94–96, 112–114, 126–128, 212–214
  - sovereign debt crisis in, 188–189, 225–230
  - sovereign ratings for, 125–126
  - standard minimum ratings requirements for, 31–32
- pricing rules
  - collateral value and, 29–34
  - liquidity and asset price changes and, 199–206
  - market and theoretical prices, 149–167
  - marketable collateral, 149–162
  - non-marketable assets, 178–182
  - pledged collateral, 162–166
  - for securities, 263–265
- primary markets
  - collateral eligibility and ratings for, 87–93
  - haircuts in, 29–32
  - sovereign debt purchases in, 231–233
- private collateral, 31–32, 94–96, 274–280
  - free-rider problem and, 19–23, 185–189
  - non-marketable assets and, 31–32, 112–114, 178–182
  - ratings for, 288–291
- programme/issuance series, rating for, 111–112
- quantitative easing, 197–198, 214–223
  - economic effects of, 242–244
- quantity-rate pairing, 189–191
- rate-cutting policies, euro crisis and, 194–199
- ratings agencies
  - credit standards and long-term ratings of, 105–107
  - expansion of, 178–182
  - government bond ratings, 115–132
  - long-term scales and scoring system, 146–147
  - rules of, 94–96
  - yearly average score comparisons, 126–128
- ratings rules
  - collateral framework and, 1–3
  - collateral value determination by, 26–28, 30–34
  - DBRS impact on sovereign ratings, 119–132
  - evolution of, 63–85, 96–112, 115–118, 281–292
  - exemptions from, 31–32, 112–114, 178–182, 288–292
  - for Greek government-guaranteed bonds, 143–146
  - for primary/secondary repo markets, 87–93
  - harmonized rating scale, 109–110, 282–284
  - inflation of, 90–93
  - Italian government guarantors impact on, 136–141
  - liquidity category changes, 80–82
  - long-term scales and scoring system, 146–147
  - monetary policies and, 214–223

- procedure for determination of, 107–109
- programme/issuance series, 111–112
- role in collateral framework, 94–96
- shopping for low-quality collateral and, 183–185
- updates for, 288–291
- refinancing operations
  - monetary base and, 45–49
  - monetary policies and, 35–45, 194–199
- repo markets
  - collateral eligibility in, 14–17, 87–93
  - discriminatory auctions in, 189–191
  - ECB shift from, 256–262
  - haircuts in, 29–32, 87–93
  - high-quality collateral and, 25–26
  - interbank market and, 266–269
  - liquidity injection through, 35–45
  - low-quality collateral bias and, 56–58, 183–189
  - ratings for, 14–17, 87–93
- representative price selection, marketable collateral, 149–162
- reserve requirements, monetary policy and, 44–45
- residual maturity effects
  - haircut policy and, 65
  - liquidity categories and, 78
  - sovereign ratings and, 119–132
- retail mortgage-backed debt (RMBS), own-use collateral and, 168–170
- retained collateral, *see* own-use collateral
- revers operations, monetary policy implementation, 35–45
- risk transfer
  - asset purchasing and, 236–242
  - collateral safety and, 14–17
- van Rixtel, Adrian, 203–205
- Rochet, Jean-Charles, 266–269
- Rocholl, Jörg, 203–206
- Schnabl, Thomas, 205–206
- secondary markets
  - collateral and liquidity in, 14–17
  - haircuts and, 29–32
  - repo market collateral eligibility and ratings, 87–93
  - sovereign debt purchases in, 231–233, 236–242
- securities
  - corporate guarantees for, 146–147
  - guarantees for, 132–136
  - haircut variations over time for, 79–85
  - Italian government guarantors for, 136–141
  - lack of market for, 263–265
- Securities Markets Programme (SMP), 42–44, 194–206, 212–214
- securities purchases, monetary policy and, 43–44
- shocks to liquidity, illiquid collateral bias and, 185–189
- Sibert, Anne C., 14–17
- Sinn, Hans-Werner, 203–205
- Slok, Torsten, 240
- Slovenia, sovereign ratings for, 125–126
- SoFFin (Special Financial Market Stabilization Funds), 142–143
- sovereign bonds/sovereign debt
  - bailouts and purchase of, 197–198, 224, 225
  - bias toward illiquid collateral and, 188–189
  - collateralization of, 256–262
  - credibility issues and, 274–280
  - DBRS impact on ratings for, 119–132
  - economic stimulus through purchase of, 242–244
  - expanded asset purchase program and, 233–235
  - financial crisis and evolution of, 192–194, 203–205, 225–230
  - full allotment policy and, 207–212
  - haircut policies and, 115–118
  - legality of purchases of, 231–233, 236–242
  - pros and cons of purchasing, 212–214
  - rating exemptions, 94–96
- sovereign guarantees
  - collateral framework and, 1–3
  - full allotment policy and, 183–185
- Spain
  - bank stock performance in, 216–223
  - extra collateral value of bonds in, 128–131

## 326 INDEX

- government bond ratings in, 94–96, 115–118
- haircuts for government bonds in, 91–93
- “jogging depositors” problem in, 203–205
- sovereign debt in, 94–96, 261–262
- Stability and Growth Pact (SGP), 245–256
  - euro crisis and, 225–230
- stale prices
  - Eurosystem collateral framework and, 178–182
  - illiquid collateral and, 183–185
  - marketable collateral, 149–162
  - pledged collateral, 162–166
  - summary of, 166–167
- Standard & Poor’s rating agency, 30–31, 94–96, 115–118
  - long-term scales and scoring system, 146–147
  - yearly average score comparisons with other agencies, 126–128
- Stark, Jürgen, 277–278
- state development banks (Förderbanken), German
  - guarantees and, 142–143
- Stella, Peter, 185–189
- sterilized purchases, 44–45
- stock market
  - liquidity effects in, 9, 199–206
  - monetary policies and, 214–223
  - spread analysis in, 216–223
- stock returns, inequality in euro area of, 32
- Strebulaev, Ilya A., 6–7, 14–17, 25, 42, 189–191, 257
- subordinated bonds, 60–62
  - collateral eligibility for, 80–82
- Summers, Larry, 255–256
- supranational debt institutions, 56–58, 256–262
- swap rates
  - full allotment policy and, 199–206
  - government bond ratings and, 118
- Sweden, 225–230
- Swiss National Bank, 224, 225
- Syriza party, 242–244, 253–255
- systemic arbitrage, market discipline and, 183–185
- Tapking, Jens, 25–26, 266–269
- targeted longer-tem refinancing operations (TLTROs), 196–197
  - repayment of, 198–199
- TARGET payment system, 203–206
- Temporary framework document (ECB 2008/11), 80–82, 107–109
  - ratings exemptions in, 112–114
- term deposits, full reserve banking and, 269–273
- theoretical prices
  - bias toward low-quality collateral and, 183–185
  - for eligible collateral, 178–182
  - illiquid collateral and, 183–185
  - marketable collateral, 149–162
  - markets and, 149–167
  - pledged collateral, 162–166
  - summary of, 166–167
- Tier 1/Tier 2 assets
  - credit standards and ratings for, 96–112
  - haircut policies and, 60–85
- Tirole, Jean, 19
- Tobin, James, 4–6
- transparency, collateral framework and, 277–278
- treasury security repurchase program, 272–273
- Treaty of the Functioning of the European Union (TFEU), 231–233
- Treaty on Stability, Coordination, and Governance (SCG), 230, 242–247
- Troika (IMF, EC, and ECB)
  - haircut rules and, 85–87
  - ratings exemptions and, 112–114
- Tsipras, Alexis, 245–247
- Turner (Lord), 237–238
- UCITS-compliant covered bonds, 104–105
  - non-regulated markets and, 171
  - ratings exemption for, 105–107
- unemployment
  - bond purchases as remedy for, 242–244
  - in euro area, 255
- uniform haircut rules, discriminatory auctions and, 189–191
- United Kingdom

- non-regulated markets in, 171–177
- wealth transfer in, 242–244
- United States
  - full reserve banking in, 272–273
  - oil agreement with Mexico and, 256–262
  - ratings inflation in, 90–93
- unsecured bank debt
  - collateral eligibility and, 32–34, 80–84
  - interbank markets and, 268–269
  - LTRO uptake, 171–177
- unsecured debt instruments
  - collateral eligibility of, 80–82
  - guarantees and bias toward, 183–185
  - in Greece, 143–146
  - off-again/on-again clause for, 82–84
- variable rate tender, 42–45
- wealth transfer
  - bank stock performance and, 216–223
  - bond purchases and, 242–244
  - full allotment policy and, 207–212
- Weber, Axel, 277–278
- Wolf, Martin, 248, 249
- Wolfson Prize, 209–212
- Woschitz, Jiri, 203–206