

Index

- adaptation of monetary aggregates 21–3
- adjustment mechanisms 95, 231, 237
- advanced countries/economies (ACs)
 - comparison with emerging markets 39, 40, 52–65, 70–71, 73–5, 126, 258–61, 262–4, 269–72
 - and volatile capital flows 8, 258–61, 262–4, 265, 267, 269
- Agosin, M. 279, 280
- Aizenman, J. 127
- Alfaro, L. 129
- Allen, F. 41
- Allen, M. 168
- Amin, K.I. 294
- amplitude (business cycle phase) 52–4, 57, 58–9, 61
- arbitrage trading 7, 173, 201, 202–4, 206–10, 212, 216–17, 218–20, 222–5
- AREAER (Annual Report on Exchange Arrangements and Exchange Restrictions) 87
- Arellano, C. 128
- Asian financial crisis (1997–98) 5, 6, 81, 82, 88, 90–91, 98, 99, 106, 164, 167, 168, 190, 201, 278
- Assenmacher-Wesche, K. 13–14
- asset-pricing model 293–5
- asset-side tools 2, 25–6
- automatic stabilizers 2, 12, 27, 69–70

- bailouts 106, 167
- bank capital-oriented tools 2, 23–4
- bank liabilities
 - and foreign bank branches 203–4, 212, 213, 214
 - and foreign currency liquidity risk 6, 165–8, 172–4, 176, 178–82, 185, 187–8, 193–7
 - and macroprudential indicators 2, 14–19, 20, 21, 22–3
 - and systemic risk 41, 67, 68
- Bank of England 19–20
- Bar-Ilan, A. 159
- Barrera, F. 32
- Basel Committee on Banking Supervision (BCBS) 35, 166, 194
- Basel regulations/requirements 13, 23, 29, 42, 48, 50, 72, 193, 251
- beggar-thy-neighbor policies 3, 84, 93, 96–7
- Ben-Bassat, A. 128
- Benmelech, E. 128
- Bernanke, B. 33
- Bianchi, J. 129
- bid-ask spreads 237–8
- binding financial constraints 112–13
- Binici, M. 187
- BIS (Bank for International Settlements) 12, 180, 183–6, 188–9, 237
- Black, F. 287
- Blanchard, O.J. 128, 131
- boom-bust cycles 72, 256
- Borio, C. 12
- “borrowed reserves” 243, 246–7, 250
- Branch, W.A. 107
- Breusch-Pagan LM test 217–18
- business/financial cycles
 - and capital flows 3, 39, 41, 59, 61, 63–4, 65–70, 74–5
 - in emerging markets 3, 39, 52–75
 - financial downturns 57, 58, 61
 - financial fluctuations 3, 57–61, 62–3
 - financial upturns 57, 59, 61
 - and foreign bank branches 203, 212, 214, 216–19, 221–2, 225
 - macroprudential policies 3, 39, 46–51, 67, 69–75
 - recessions 52–6, 57–8, 60, 62

- recoveries 52–6, 59–61, 62–3
- structural characteristics of
 - emerging markets 61, 63–5
 - and systemic risk 3, 39, 40–46, 52–70
- Calvo, G.A. 158
- Cao, C. 294
- capital account openness 8, 27, 82, 86, 90–92, 256, 258, 262, 264–9
- capital and provisioning requirements 3, 46, 48–50
- capital controls 81–4
 - and capital flows 3, 8, 82–3, 84–9, 90–92, 93, 97–100, 101, 104, 256–7, 278–81
 - and current account imbalances 4, 82, 84, 93, 94–5, 96–101
 - and distorted financial decisions 116–18, 119
 - and emerging economies 4, 82, 83, 84–5, 87, 104–6
 - and excessive risk taking 119
 - and exchange rates 84, 87–8, 91–7, 100
 - external borrowing constraints 104, 108–9, 117–18
 - and financial amplification 4, 104–5, 107, 108, 116
 - and foreign currency liquidity risk 187, 190
- G20 guidelines 3, 4, 84, 93–9, 100–101
 - and global financial crisis 81–2, 86, 89, 91–2, 93–5
 - and IMF 2, 3–4, 30–31, 81, 83, 86–7, 90–92, 93, 97, 100–101
 - and inflation 88, 99
 - and irrational expectations 4, 105–6
 - and macroprudential policies 69
 - and macroprudential tools 2, 28, 30–32, 36
 - negative externalities of 4, 84, 92, 93, 96–7, 100–101
 - and overborrowing 116–18
 - proposal for 4, 83–4, 92–101
 - and taxation 82, 85–6, 89
 - use and effectiveness of 3, 83, 84–90, 93
- “capital flow management” 2, 30–31, 36, 67, 83, 90–92, 187, 190
- capital flows
 - and business/financial cycles 3, 39, 41, 59, 61, 63–4, 65–70, 74–5
 - and capital controls 3, 8, 82–3, 84–9, 90–92, 93, 97–100, 101, 104, 256–7, 278–81
 - and commodity price index 258, 264–6
 - and currency mismatches 67, 250, 256
 - and emerging economies 3, 39, 41, 59, 61, 63–4, 65–70, 74–5, 104
 - and flights 8, 257, 259–61, 269–75
 - and foreign bank branches 201, 225
 - and foreign currency liquidity risk 167, 170–72, 176–7, 181, 187–8, 190
 - and foreign currency reserves 230–31, 235, 239, 250–52
 - and global risk aversion index 258
 - gross inflows 257–8, 259–60, 264–77, 282
 - gross outflows 257–8, 259, 269–77, 282
 - and inflation 65–7, 69, 257, 278
 - and international reserves 130–31, 134, 154, 156, 159
 - and retrenchments 8, 9, 257, 259–61, 269–76
 - sudden changes in 8, 9, 257, 259–61, 264–77, 281–2
 - and sudden stops 8, 9, 257, 259–61, 264, 267–8, 269–77, 281–2
 - and surges 8, 9, 257, 259–61, 264–6, 269–77, 281–2
- volatile flows and flexible exchange rates
 - advanced economy impacts 8, 258–61, 262–4, 265, 267, 269–72
 - capital account openness 8, 256, 258, 262, 264–9
 - capital controls 8, 256–7, 278–81
 - compensatory events 269–77
 - determinants of extreme events 258–69
 - emerging economy impacts 8, 256–7, 258–9, 261–4, 266, 268, 269–72, 276–7

- frequency of extreme events
 259–61, 269–73
 probability of extreme events in
 gross inflows 264–9
 unremunerated reserve
 requirements 278–81
 capital gains tax 89, 301, 302
 capital mobility 11, 81, 83, 85–9, 90,
 95, 151, 155
 Cardenas, M. 32
 Carletti, E. 41
 Carroll, C. 107
 Céspedes, L.F. 109, 159
 Cetorelli, N. 201
 Chase Manhattan Bank 205
 Chen, N.F. 293, 297
 Chinn, M.D. 258, 262
 Choheung Bank 180, 181, 182
 Chow breakpoint test 145, 147
 Cifuentes, R. 278–80
 CIP (covered interest parity) deviation
 217
 Citi Bank 180, 181, 182
 Cobb-Douglas function 108, 111
 commodity price index 258, 264–6
 common shocks 18, 41
 compatibility condition 111
 congestion charge (London) 27–8
 constrained social planner 113–15, 117,
 118, 120, 121
 consumer protection 25
 core bank liabilities
 and foreign currency liquidity risk
 180
 and macroprudential indicators 2,
 15–19, 20, 21, 22–3
 and macroprudential tools 27
 and systemic risk 41, 67, 68
 Cosimano, T.F. 72
 cost-benefit analysis 127, 247, 249, 301
 countercyclical capital buffers/
 requirements 23–4, 47, 49–50, 71,
 73
 CoVaR (conditional value at risk)
 measures 19
 Cowan, K. 258
 credit growth caps 47, 49, 51, 71
 credit risk 51, 166
 credit shocks 13
 cross-section risk measures 18–20
 cross-sectional systemic risk 39, 40–41,
 45–6
 Crowe, C. 73
 cumulative loss (business cycle phase)
 52–4, 58
 currency manipulation 83, 95, 98
 currency mismatches
 and capital flows 67, 250, 256
 and foreign bank branches 201
 and foreign currency liquidity risk
 165, 166, 178–9, 194–5
 and international reserves 136–7
 and macroprudential tools 2, 23, 27
 “currency wars” 83, 91, 93–4
 current account imbalances 4, 82, 84,
 93, 94–5, 96–101
 cyclical systemic risk 39, 40–45

 De Gregorio, J. 32, 280
 De Haas, R. 201, 217, 222
 De Nicolò, G. 45
 debt to liquidity ratio 113
 Dell’Ariccia, G. 73
 demand deposits 15
 derivatives trading/markets
 and foreign bank branches 7, 203–4,
 206–10, 213–14, 219–20, 224–5
 and foreign currency liquidity risk
 164, 175, 177, 180–81, 183–6,
 188, 194–5
 and macroprudential tools 24
 and risk-hedging behavior 9, 286–93,
 298–302
 Dexter, Harry 90
 Dickey-Fuller test 294
 discretization method 133
 distorted financial decisions 116–21
 Dooley, M.P. 127
 Dornbusch, R. 149, 155, 157, 159–62
 Drehmann, M. 12–13
 DTI (debt-to-income) ratios/caps 25–6,
 34, 47, 51, 70, 71, 73
 duration (business cycle phase) 52–4,
 57, 58–9
 Dvir, E. 128
 dynamic loan-loss provisioning 47, 49

 Easley, D. 286, 287, 294
 East-West Center (Hawaii) 1
 Eaton, J. 155

- ECB (European Central Bank) 14–15
- emerging economies/markets
 - and business/financial cycles 3, 39, 52–75
 - and capital controls 4, 82, 83, 84–5, 87, 104–6
 - and capital flows 3, 39, 41, 59, 61, 63–4, 65–70, 74–5, 104
 - volatile flows 8, 256–7, 258–9, 261–4, 266, 268, 269–72, 276–7
- comparison with advanced countries 39, 40, 52–65, 70–71, 73–5, 126, 258–61, 262–4, 269–72
- and external borrowing constraints 104, 117–18
- and financial amplification 104–5, 107, 121
- financial crises models 106–7
- and financial downturns 57, 58, 61
- and financial fluctuations 3, 57–61, 62–3
- and financial integration 11
- and financial upturns 57, 59, 61
- and foreign currency liquidity risk 6, 164–8, 170, 172, 187, 190, 192–8
- international reserves
 - and currency mismatch 136–7
 - current account balance 140, 141, 142, 152, 154–5, 157, 159, 162
 - “excessive reserves” 5–6, 162
 - exchange rate volatility 147–9
 - and exchange rates 5, 136–7, 140, 141–51, 154–62
- GARCH model 143–4
- Granger causality results 141, 142, 143
- OLS model 143–4
- policy-maker’s incentives 5, 138
- publicly vs. privately held net assets model 157–62
- pure accounting relationship 140
- regime change 145, 147
- sterilized vs. nonsterilized liquidity model 150–57
- structural vector autoregression results 141–3
- and sudden stops 5, 125, 126, 127, 135, 136–8
- system equation results 145, 146
- and irrational expectations 105–7, 121
- and macroprudential policies 3, 39–40, 70–75
- and recessions 52–6
- and recoveries 52–6, 59–61, 62–3
- social welfare costs 4, 105, 121
- structural characteristics 61, 63–5
- and systemic risk 3, 39, 41, 46, 52–70
- EMs (emerging markets) *see* emerging economies/markets
- envelope theorem 111
- equality of means test 214–15
- essential payments 236
- excess volatility 107
- “excessive reserves” 5–6, 162
- excessive risk taking 4, 119–20
- excessive short-term debt 120–21
- exchange rates
 - and capital controls 84, 87–8, 91–7, 100
 - and capital flows 65–7, 69
 - and financial amplification 104–5, 106, 107–8, 114–15, 117
 - fixed 229–30, 235, 264
 - flexible *see* flexible exchange rates
 - floating 1, 7–8, 229, 230–31, 234–5, 239, 251
 - and foreign bank branches 203
 - and foreign currency liquidity risk 166, 172, 190, 194
 - and foreign currency reserves 229–35, 237, 240, 245, 250–52
 - and international reserves 5, 136–7, 140, 141–51, 154–62
 - and macroprudential tools 31–2
 - “overshooting” 161–2, 229, 232, 252
- Exchange Stabilization Account 28
- expected loss 50, 128
- external borrowing constraints 104, 108–9, 117–18
- external debt ratios 168–70, 187, 190–92
- “extreme disorder” in foreign exchange markets 231–2
- extreme events, determinants of 258–69

- FBBs (foreign bank branches)
- arbitrage trading 7, 173, 201, 202–4, 206–10, 212, 216–17, 218–20, 222–5
 - and bank liabilities 203–4, 212, 213, 214
 - behavior in foreign exchange markets 7, 201–2, 203, 206–9, 212–14, 216, 219–20, 225
 - and business cycles 203, 212, 214, 216–19, 221–2, 225
 - and capital flows 201, 225
 - country of origin 202, 205–6, 209–11, 212, 215–16, 221–2, 224–5
 - data and descriptive statistics 213–15
 - derivative trading 7, 203–4, 206–10, 213–14, 219–20, 224–5
 - econometric methodology/results of study 216–24
 - empirical strategy of study 216–18
 - equality of means test 214–15
 - estimation results 218–24
 - foreign capital supply 213–14
 - and foreign currency liquidity risk 168, 170, 172–4, 176–8, 187, 190–92, 193, 194–6
 - and foreign currency swaps 204, 206–9, 213–17, 219, 222, 224, 225
 - and global financial crisis 7, 201, 202–3, 208, 224–5
 - headquarters of 173–4, 195, 203–4, 205, 206–10, 212, 214–16, 218–19, 221–4
 - history and current status in Korea 205–6
 - local subsidiaries 205
 - and macroprudential tools 26
 - main businesses of FBBs in Korea 206–11
 - positive effects of 7, 201, 224
 - regulatory framework 7, 211–13
- Federal Reserve (US) 232, 241, 243, 245, 248, 250
- feedback loops 18, 105–6, 121
- financial amplification
- benchmark model of 107–16
 - binding financial constraints 112–13
 - and capital controls 4, 104–5, 107, 108, 116
 - and constrained social planner 113–15, 117, 118, 120, 121
 - and distorted financial decisions 116–21
 - and emerging economies 104–5, 107, 121
 - and excessive risk taking 4, 119–20
 - and excessive short-term debt 120–21
 - and exchange rates 104–5, 106, 107–8, 114–15, 117
 - and external borrowing constraints 104, 108–9, 117–18
 - and irrational expectations 4, 105, 107, 115–16, 117–18, 120, 121–2
 - optimistic expectations 105, 115–16, 117, 120, 121
 - and overborrowing 116–18
 - and pecuniary externalities 105, 107, 121
 - role of private agents 4, 105, 106, 107–8, 113–21
 - and social welfare costs 4, 105, 121
 - and taxation 118, 120
 - unbinding financial constraints 109–12
- financial downturns (in financial cycles) 57, 58, 61
- financial fluctuations (in financial cycles) 3, 57–61, 62–3
- financial integration 1, 11, 256
- financial liberalization 11, 20–21, 84–6, 88–90, 104
- Financial Stability Board 35
- financial transactions tax (Tobin tax) 298, 299–300
- financial upturns (in financial cycles) 57, 59, 61
- fire sales 42, 49, 50
- first-best allocations 111, 114
- first-generation crises models 106
- fixed effects model 217–18
- fixed exchange rates 229–30, 235, 264
- flexible exchange rates 1
- and emerging economies 74
 - and financial stability 256
 - and foreign currency reserves 8, 234–5

- and volatile capital flows
 - advanced economy impacts 8, 258–61, 262–4, 265, 267, 269–72
 - capital account openness 8, 256, 258, 262, 264–9
 - capital controls 8, 256–7, 278–81
 - compensatory events 269–77
 - determinants of extreme events 258–69
 - emerging economy impacts 8, 256–7, 258–9, 261–4, 266, 268, 269–72, 276–7
 - frequency of extreme events 259–61, 269–73
 - probability of extreme events in gross inflows 264–9
 - unremunerated reserve requirements 278–81
- flights 8, 257, 259–61, 269–75
- floating exchange rates 1, 7–8, 229, 230–31, 234–5, 239, 251
- Forbes, K.J. 257
- foreign currency funding structure (of banks) 7, 197–8
- foreign currency gap ratio 164, 169, 177, 178–9, 182, 184, 187, 190–93, 195
- foreign currency lending limits 47
- foreign currency liquidity risk
 - and bank liabilities 6, 165–8, 172–4, 176, 178–82, 185, 187–8, 193–7
 - and capital flows 167, 170–72, 176–7, 181, 187–8, 190
 - and currency mismatches 165, 166, 178–9, 194–5
 - in emerging economies 6, 164–8, 170, 172, 187, 190, 192–8
 - empirical characterization of 178–87
 - and exchange rates 166, 172, 190, 194
 - external debt ratios 168–70, 187, 190–92
 - and foreign bank branches 168, 170, 172–4, 176–8, 187, 190–92, 193, 194–6
 - and foreign currency funding structure 7, 197–8
 - and foreign currency gap ratio 164, 169, 177, 178–9, 182, 184, 187, 190–93, 195
 - and foreign currency swaps 173–4, 195–6
 - and GDP ratios 180, 182–6, 188–9
 - and global financial crisis 6, 165, 168–78, 193, 195–6
 - and hedging needs/demands 172, 173, 175, 177, 196
 - liquidity ratio measures 16, 175, 177, 178–9, 181, 183, 193, 197
 - and loan-to-asset ratio 179, 186
 - and loan-to-deposit ratio 180, 182–6, 187, 188–9
 - measures of liquidity/illiquidity 178–80
 - and noncore bank liabilities 165–6, 172, 179–80, 187–8, 195–7
 - prudential bank regulation 6, 164–5, 168–78, 187, 190–98
 - and risk management practices 6, 164, 175, 187, 192, 196–7
 - and short-term debts 170, 172–3, 177, 190–92
 - and systemic risk 6, 164, 165–8, 194
- foreign currency reserves
 - 2004 Reserve Bank intervention policy 7, 231, 232–3, 245
 - and capital controls 89
 - and capital flows 230–31, 235, 239, 250–52
 - evolving role of 231–3
 - and exchange rates 229–35, 237, 240, 245, 250–52
 - “extreme disorder” in foreign exchange markets 231–2
 - financing foreign currency liquidity 241–50
 - and floating exchange rates 7–8, 229, 230–31, 234–5, 239, 251
 - and foreign currency swaps 7, 229, 232, 237, 238–41, 243, 246–50
 - and global financial crisis 236, 239–41, 249–50, 251
 - hedging of 7–8, 229, 232, 235, 236–7, 239, 243–4, 246–50, 252
 - IMF data and measures 236, 241–2, 243, 246, 250
 - and inflation 230–31, 232–4

- intervention capacity of Reserve Bank 7, 229, 243–4, 246, 252
- level of 233–41
- and liquidity insurance 237–41, 243–4
- longer-term borrowing and hedging 7, 229, 243, 246–9, 252
- and market dysfunction 229, 232, 236, 237, 241, 252
- monetary policy trilemma 229–31, 252
- official reserve assets 241–4
- open foreign currency position 7, 8, 243–4, 245, 246, 251
- “overshooting” exchange rates 229, 232, 252
- and short-term debt 234–6
- traditional measures of reserves adequacy 233–7
- see also* international reserves
- foreign currency swaps
 - and foreign bank branches 204, 206
 - and foreign currency liquidity risk 173–4, 195–6
 - and foreign currency reserves 7, 229, 232, 237, 238–41, 243, 246–50
- Foreign Investment Promotion Act (1998) 205
- forward-looking provisioning 24
- Francis, W. 71–2
- Frankel, J. 300
- frequency of extreme events 259–61, 269–73
- Friedman, Milton 1
- G20 (Group of Twenty) 3, 4, 27, 84, 93–9, 100–101, 298–9
- GARCH (generalized autoregressive conditional heteroskedasticity) model 143–4
- García, P. 128
- GDP (gross domestic product) ratios 2, 12–14, 23, 180, 182–6, 188–9
- Geneva Report (2009) 13
- Gerlach, S. 13–14
- Gertler, M. 33
- Glick, R. 158
- global financial crisis (2008–09)
 - and capital controls 81–2, 86, 89, 91–2, 93–5
 - and cross-border capital flows 1, 11
 - and financial integration 11
 - and financial stability 33, 35
 - and foreign bank branches 7, 201, 202–3, 208, 224–5
 - and foreign currency liquidity risk 6, 165, 168–78, 193, 195–6
 - and foreign currency reserves 236, 239–41, 249–50, 251
 - and international reserves 128, 131, 145
 - and macroprudential policies 39
 - and macroprudential tools 33
 - and risk-hedging behavior 9, 285, 286, 291–3, 296
 - and tax havens 298
- global risk aversion index 258
- Goldberg, L.S. 201
- Gottlieb, D. 128
- Granger causality 141, 142, 143
- gross inflows 257–8, 259–60, 264–77, 282
- gross outflows 257–8, 259, 269–77, 282
- Guidotti-Greenspan rule 5, 129, 234
- Gurley, J.G. 15
- Habermeier, K. 187, 190
- Hahn, J. 16, 166, 172, 197
- Hakura, D.S. 72
- Hana Bank 180, 181, 182
- Hattori, M. 20
- Hausman test 217
- headquarters (foreign bank branches) 173–4, 195, 203–4, 205, 206–10, 212, 214–16, 218–19, 221–4
- “hedged reserves” 7–8, 243–4, 246–9, 252
- hedging
 - of foreign currency reserves 7–8, 229, 232, 235, 236–7, 239, 243–4, 246–50, 252
 - hedging instruments 65, 212, 229, 232, 243, 252
 - hedging needs/demands 172, 173, 175, 177, 196, 202
 - hedging risk
 - and derivatives market 9, 286–93, 298–302
 - and global financial crisis 9, 285, 286, 291–3, 296

- impact of foreign investors on
 - risk-hedging 9, 285–6, 287, 288–97, 302
 - and “informed traders” 286–7, 294
 - managing foreign investment 298–302
 - and put–call ratios 9, 286, 287, 292–3, 294–7, 302
 - and tax havens 9, 286, 289, 290, 298–9, 302
- Heller, R.B. 127
- herd behavior 17
- Hutchison, M.M. 158

- Igan, D. 73
- illegitimate capital flows 90
- IMF (International Monetary Fund)
 - and business/financial cycles 51
 - and capital controls 2, 3–4, 30–31, 81, 83, 86–7, 90–92, 93, 97, 100–101
 - and foreign currency liquidity risk 167
 - and foreign currency reserves 236, 241–2, 243, 246, 250
 - and macroprudential tools 27, 28, 30–31
 - “paternalistic” regulations 4, 83, 92, 100
- imperfect competition 148–9
- indicators (macroprudential) *see* macroprudential indicators
- inflation
 - and capital controls 88, 99
 - and capital flows 65–7, 69, 257, 278
 - and foreign currency reserves 230–31, 232–4
 - international reserves 150–53, 156, 158
 - and macroprudential indicators 14–15
 - and monetary policy 32–3, 74
- information asymmetry 166–7, 286
- “informed traders” 286–7, 294
- “inside money” 15
- International Clearing Union 95
- international reserves
 - and capital flows 130–31, 134, 154, 156, 159
 - dynamic model 5, 125, 128, 129–33, 136, 138
- emerging economies
 - and currency mismatch 136–7
 - current account balance 140, 141, 142, 152, 154–5, 157, 159, 162
 - “excessive reserves” 5–6, 162
 - exchange rate volatility 147–9
 - and exchange rates 5, 136–7, 140, 141–51, 154–62
 - GARCH model 143–4
 - Granger causality results 141, 142, 143
 - OLS model 143–4
 - policy-maker’s incentives 5, 138
 - publicly vs. privately held net assets model 157–62
 - pure accounting relationship 140
 - regime change 145, 147
 - sterilized vs. nonsterilized liquidity model 150–57
 - structural vector autoregression results 141–3
 - and sudden stops 5, 125, 126, 127, 135, 136–8
 - system equation results 145, 146
 - and expected loss 128
 - and global financial crisis 128, 131, 145
 - and inflation 150–53, 156, 158
 - literature review 127–9
 - motives for accumulation 127
 - optimal level of 5, 125–6, 127–8, 129–36, 137–8
 - and private agents 5, 125–6, 128, 129–33, 135–8
 - and risk aversion 128, 134–6, 138
 - and short-term debt 5, 128, 129–31
 - and sudden stops 5, 125, 126, 127, 128, 129, 130–35, 136–8
 - and utility-based welfare function 125, 129
 - see also* foreign currency reserves
- internationally traded bonds 150, 151, 155
- intervention capacity (of NZ Reserve Bank) 7, 229, 243–4, 246, 252
- intervention policy (NZ Reserve Bank, 2004) 7, 231, 232–3, 245

- irrational expectations
 and capital controls 4, 105–6
 and distorted financial decisions
 116, 117–18, 120, 121
 and emerging economies 105–7, 121
 and excessive risk taking 120
 and excessive short-term debt 121
 and financial amplification 4, 105,
 107, 115–16, 117–18, 120, 121–2
 and overborrowing 117–18
- Ito, H. 258, 262
- Jeanne, O. 107, 128, 129, 131, 134
- Jimenez, G. 72
- JP Morgan Chase 208
- Kalman filter method 295
- Kanczuk, F. 129
- Kang, H. 73
- KB Kukmin Bank 180, 181, 182
- Keynes, John Maynard 90, 95
- Kim, C.J. 296
- Kim, K.Y. 174, 201
- Kiyotaki, N. 109
- Korea Development Institute 1
- Korea Economy Magazine* 285
- Korea Exchange Bank 180, 181, 182
- Korea First Bank 180, 181, 182
- Korinek, A. 107, 108, 109
- KOSPI (Korea Composite Stock
 Price Index) 9, 286, 288–9, 291–3,
 294–5, 300–302
- KRX (Korea Exchange) 288–9,
 300–301, 302
- Lane, P.R. 126, 148–9
- Larraín, F. 280
- Le Fort, G. 279, 280
- “leaning against the wind” 13, 34, 145,
 147
- Lederman, D. 159
- Lee, C.M. C. 294
- Lee, J. 127
- Lee, J.-E. 145, 149, 150
- legitimate capital flows 90
- Lehman Brothers 18, 164, 202
- Lehmann, S. 279, 280
- “lender-of-last-resort” role (central
 banks) 164, 167, 197
- Lesage, D. 299
- leverage caps 24, 31
- Levy-Yeyati, E. 168
- liabilities-side tools 2, 27–30
- Lim, C.H. 73
- limited liability 44
- linear factor pricing model 293–7
- liquidity ratios 16, 175, 177, 178–9,
 181, 183, 193, 197
- loan-to-asset ratios 179, 186
- loan-to-deposit ratios 25, 26, 31, 68,
 180, 182–6, 187, 188–9
- long-term debt 120–21, 177
- Lowe, P. 12
- LTV (loan-to-value) ratios/caps 25, 26,
 31, 34, 47, 51, 70, 71, 73
- M1/M2 monetary aggregates 14, 15,
 20, 21, 234–6
- macroprudential indicators 2, 11–12
- adapting monetary aggregates 21–3
 and bank liabilities 2, 14–19, 20, 21,
 22–3
- core and noncore bank liabilities 2,
 15–19, 20, 21, 22–3
- credit growth ratio to GDP 2, 12–14,
 23
- cross-section risk measures 18–20
- nonfinancial corporate deposits
 20–21
- and systemic risk 18–19
- macroprudential tools 2, 12
- asset-side tools 2, 25–6
- bank capital-oriented tools 2, 23–4
 and bank liabilities 25, 26–8, 29
 and business/financial cycles 46–51
 and capital controls 2, 28, 30–32, 36
 core and noncore bank liabilities 25,
 26–8, 29
- and currency mismatches 2, 23, 27
 and global financial crisis 33
- liabilities-side tools 2, 27–30
- relationship with other stabilization
 policies 30–32
- and systemic risk 23, 27
- and taxation 3, 27, 28–30, 31, 46,
 49, 51
- Magud, N. 32, 278
- MAPPs (macroprudential policies)
 and business/financial cycles 3, 39,
 46–51, 67, 69–75

- capital and provisioning
 - requirements 3, 46, 48–50
- effectiveness of 71–3
- in emerging markets 3, 39–40, 70–75
- and global financial crisis 39
- macroprudential toolkit 46–51
- quantitative restrictions 3, 46, 49, 50–51
- rationale for 40–51
- and systemic risk 3, 39, 40–41, 42–5, 49–50, 72–3, 74
- market dysfunction 229, 232, 236, 237, 241, 252
- market failures 39, 41, 70
- market risk 13, 166, 297–8
- market-clearing conditions 109–11, 112, 113
- “market-friendly” interventions 278
- maturity mismatches 27, 41, 50, 166, 168, 178–9, 193, 201
- Mendoza, E.G. 108, 109
- mercantilist policies 127, 156
- MGcredit 145–7
- Milesi-Ferretti, G.M. 126
- Mishkin, F.S. 166
- monetary easing *see* quantitative easing
- Moore, J. 109
- moral hazard 33, 50, 106, 167, 197
- Mundell-Fleming model 1
- Mutual Assessment Process (G20) 94
- National Tax Service (Korea) 299
- negative externalities (of capital controls) 4, 84, 92, 93, 96–7, 100–101
- negative news trading 287
- negative shocks 41–3, 104–5, 222
- Nelson, C.R. 296
- noncore bank liabilities
 - and foreign bank branches 203
 - and foreign currency liquidity risk 165–6, 172, 179–80, 187–8, 195–7
 - and macroprudential indicators 2, 15–19, 20, 21, 22–3
 - and macroprudential tools 25, 26–8, 29
 - and systemic risk 41, 67, 68
- nonfinancial corporate deposits 20–21
- nontradable consumption goods 107–11
- Northern Rock 16–17, 19–20
- NPL (nonperforming loan) ratio 180, 183–6, 188–9
- Obstfeld, M. 149
- OECD (Organisation for Economic Co-operation and Development) 13, 289, 290, 298–9, 302
- official reserve assets 241–4
- OLS (ordinary least squares) model 143–4
- open foreign currency position 7, 8, 243–4, 245, 246, 251
- opportunity cost 29, 118
- optimistic expectations 105, 115–16, 117, 120, 121
- Osborne, M. 71–2
- Ostry, J.D. 29, 32, 91
- “outside money” 15
- Ouyang, A.Y. 158
- overborrowing 116–18
- “overshooting” exchange rates 161–2, 229, 232, 252
- Pan, J. 286, 287, 293, 294, 295
- Park, D. 172, 190
- “paternalistic” regulations 4, 83, 92, 100
- pecuniary externalities 105, 107, 121
- peer benchmarking 44
- perfect foresight equilibrium 153–4
- pessimistic expectations 105
- Pigouvian tax 118, 120
- Poblete-Cazenave, R. 278–80
- Popov, A. 201
- positive news trading 287
- positive shocks 41–3, 105
- Poteshman, A.M. 286, 287, 293, 294, 295
- price stability 8, 33, 231, 251
- “pricking bubbles” 33–4
- private agents
 - and financial amplification 4, 105, 106, 107–8, 113–21
 - and international reserves 5, 125–6, 128, 129–33, 135–8
- procyclicality (of bank balance sheets) 18, 23

- procyclicality (of financial systems) 1, 9–10, 12, 13, 15, 19, 20, 41, 42–4, 46, 51, 72, 172, 180, 196–7
- profit distribution restrictions 47, 48, 71
- publicly vs. privately held net assets model (international reserves) 157–62
- put–call ratios 9, 286, 287, 292–3, 294–7, 302
- quantitative easing 82, 100, 156
- quantitative macroprudential restrictions 3, 46, 49, 50–51
- quantity theory 15
- Ramanarayanan, A. 128
- Rancière, R. 128, 129
- random effects model 217
- recessions (in business/financial cycles) 52–6
- recoveries (in business/financial cycles) 52–6, 59–61, 62–3
- regime change 145, 147
- Reinhart, C. 131, 258
- Reinhart, V. 131
- representative consumer (in sterilized vs. nonsterilized liquidity model) 150–52
- Reserve Bank (New Zealand) 7, 230–34, 239, 241, 243–8, 251
- Reserve Bank of New Zealand Act (1989) 231, 245
- reserve requirements 4, 25, 27, 28–30, 47, 51, 70–73, 86, 118–20, 121, 278–81
- retrenchments 8, 9, 257, 259–61, 269–76
- risk management practices (of banks) 6, 164, 175, 187, 192, 196–7
- Roberts, J. 107
- Rogoff, K. 149, 258
- rollover ratios 170–71
- Rothenberg, A.D. 127, 131, 257
- savings–investment gap 251
- Schindler, M. 85
- Schoenmaker, D. 41
- Schulmeister, S. 300
- Schwert, W. 300
- second-generation crises models 106
- Seguin, P. 300
- seigniorage revenues 106
- separation principle 33, 34
- Shaw, E.S. 15
- Shin, H.S. 14, 16–18, 19, 27, 51
- Shin, K. 14, 17–18, 19
- Shinhan Bank 180, 181, 182
- short-term debt
and capital controls 82
excessive 120–21
and foreign currency liquidity risk 170, 172–3, 177, 190–92
and foreign currency reserves 234–6
and international reserves 5, 128, 129–31
- SIFIs (systemically important financial institutions) 50
- signaling effect 168, 241
- slope (business cycle phase) 52–4, 57, 58–9
- SMEs (small or medium-sized enterprises) 22, 201
- social planner 4, 105–6, 113–15, 117, 118, 120, 121
- social welfare costs 4, 105, 121
- Soto, C. 128, 280
- Special Data Dissemination Standard (IMF) 236
- standard deviation 148, 259–60
- sterilized vs. nonsterilized liquidity model (international reserves) 150–57
- “sticky” liabilities 2, 16
- Stiglitz, J.E. 300
- stochastic frameworks/processes 73, 108, 130, 131, 155
- structural factors (in financial cycles) 61, 63–5
- structural vector autoregression 141–3
- Stultz, R. 300
- sudden changes (in capital flows) 8, 9, 257, 259–61, 264–77, 281–2
- sudden stops
and international reserves 5, 125, 126, 127, 128, 129, 130–35, 136–8
and volatile capital flows 8, 9, 257, 259–61, 264, 267–8, 269–77, 281–2

- Suh, Y.K. 174, 201
 Sung, T.-Y. 148
 supply push 27
 surges 8, 9, 257, 259–61, 264–6, 269–77, 281–2
 Suvanto, A. 300
 system equation results (international reserves) 145, 146
 systemic risk
 and bank liabilities 41, 67, 68
 and business/financial cycles 3, 39, 40–46, 52–70
 cross-sectional 39, 40–41, 45–6
 cyclical 39, 40–45
 and emerging economies/markets 3, 39, 41, 46, 52–70
 and foreign currency liquidity risk 6, 164, 165–8, 194
 and macroprudential indicators 18–19
 and macroprudential policies 3, 39, 40–41, 42–5, 49–50, 72–3, 74
 and macroprudential tools 23, 27
 and procyclicality of financial systems 41, 42–4, 46
 tax havens 9, 286, 289, 290, 298–9, 302
 taxation
 and capital controls 82, 85–6, 89
 capital gains tax 89, 301, 302
 and financial amplification 118, 120
 and macroprudential policies 3, 46, 49, 51
 and macroprudential tools 3, 27, 28–30, 31, 46, 49, 51
 and systemic risk 45
 Tobin tax 298, 299–300
 third-generation crises models 106
 time-series risk measures 18
 time-varying betas 295–6, 297
 Tinbergen, J. 33, 34
 Tobin tax (financial transactions tax) 298, 299–300
 tools (macroprudential) *see* macroprudential tools
 total private sector credit (macroprudential indicator) 2, 12–14, 23
 Tovar, C.E. 72
 tradable consumption goods 107–13, 115–16
 transaction costs hypothesis 287
 trust liabilities 22
t-tests 215, 223, 224
 Tucker, P. 251
 Turnovsky, S. J. 149, 150, 152, 153, 155, 156
 Udell, G. 201
 UN Model Tax Convention 299
 unbinding financial constraints 109–12
 URRs (unremunerated reserve requirements) 4, 27, 28–30, 86, 118–20, 121, 278–81
 USTBs (US five-year Treasury bond) 180–81, 183–6, 188–9
 utility-based welfare function 125, 129
 value-at-risk models 44
 van Lelyveld, I. 201, 217, 222
 VAR (vector autoregression) models 141–2, 187, 190
 VIX (CBOE volatility index) 258, 264–8, 273, 276
 Warnock, F.E. 127, 131, 257
 Wiertz, P.J. 41
 Wong, E. 72–3
 Woori Bank 180, 181, 182