Index

Albania 59, 64, 268
anti-trust legislation 222
Armenia 268
Arrow-Debreu securities
state-contingent 80
Asian Financial Crisis (1997–8) 119, 188
asset price 14, 180, 222
fluctuations 50–51
private sector 23
Australia 12
Austria 5, 124, 158, 236, 243–4, 254, 258
economy of 243
financial cycle of 243
government of 267–8
Ministry of Finance 267
Vienna 152, 267
housing prices in 152–3, 158, 160
Azerbaijan 268
balance-of-payments crises 49
bank runs in 50
balance sheet 74
adjustment 28
policies 22, 25, 27
recession 19
concept of 18, 20–21
Bank for International Settlements (BIS) 11, 156, 238
Banking Supervision Commission 71
bankruptcy 50, 223
Basel Committee on Banking Supervision 119, 268
Basel III Agreement 14, 269, 274, 288, 293
Belarus 268
BELL group 208–9, 211–12
private shock-absorbers 209
Bosnia and Herzegovina 59, 268
unemployment rate in 63
Bulgaria 59, 156, 208, 236, 245, 251, 256, 258, 268
banking sector of 220
capital inflow of 246
household debt-to-GDP ratio 246
housing market of 158–9
net inflows of 252
business cycles 77–8, 80, 83–4, 91–3, 235–6, 279, 281, 285
area-wide 91
generation of 281
synchronization of 83, 91–3
capital 21, 72, 103, 192, 208, 280, 296
buffer 14, 20, 72, 107–9, 111–12
equity 109
flow 222, 230
cross-border 201, 205, 258
global 99
formation of 125
gross 125
human 226
inflows 49, 76, 106–7, 201, 204, 212
cumulative 246
foreign 75–6, 96, 116–17, 279–80
internal market 208–9
international 220
regulation of 4
reserves 286, 289
short-term 116
stock 27
to-GDP ratio 6, 18
volatility of 76
capital adequacy ratio (CAR) 284, 286
Capital Requirements Directive (2010) 103
Central and Eastern European countries (CEECs)/Central, Eastern and South-Eastern Europe (CESEE) 3–5, 8, 59, 65, 156–7, 199–202, 204–8, 210, 212,
Financial cycles and the real economy

banking sector of 220
contribution of domestic demand to economic growth 62
credit boom in 6
exports from 60
GDP per capita in 60
unemployment rates in 63
centrally planned economy (CPE) 114, 279
Chinn-Ito Index 201
Commonwealth of Independent States (CIS) 204
(2012) 4, 6
(2013) 8
credit 6, 12, 63, 84–5, 99, 107, 148, 160–61, 173, 176, 192, 194, 221, 238, 251, 282, 284
availability of 61, 220, 230, 281
ceiling 100–101
consumer 222
corporate 119
cycles 285
growth 150, 200–202, 253, 282, 286, 294, 300
negative 199
weak 206
private sector 5, 13, 62, 84–5, 159, 173, 194, 199–200, 206, 219, 221, 225–7, 253
risk 103, 154
foreign currency (FX)-induced 285
shock absorption 205–6, 208–11
-to-GDP ratio 6, 18, 71, 202, 207, 218–19, 225, 230, 294–6, 301
private 206–7
credit growth reserve instrument (CGR) 100
Croatia 59, 98–9, 111–12, 156, 201, 268
economy of 97, 99–100, 105–6
housing market of 160
unemployment rate in 63
Croatian Bank for Reconstruction and Development 106
Croatian National Bank (CNB) 96–7, 105, 108
abolition of MRR and SRR (2008) 105
Currency Induced Credit Risk Management Guidelines (2006) 102
eyear intervention policy of 100
Guidelines for Managing Credit Risk Arising from Placements to Households (2006) 102–3
purchase of compulsory bills 100, 103–4
reduction of GRR and MRFCC (2008/2012) 105–6
release of banks’ international assets (2008–12) 106
currency-induced credit risk (CICR) 107
current account 46, 119
balance 209, 258
deficit 62, 115–16, 118, 173–4, 222, 251, 280
surplus 179
Cyprus 3, 206
Czech Republic 59, 156, 251, 253
accession to OECD (1995) 114, 116
automobile industry of 60–61
capital inflow of 246
capital market of 117
Czech National Bank 119
economy of 114–17, 119–22, 124–5, 127
current account 119
FDI in 115, 120, 125–7
foreign capital inflow in 116
foreign-controlled companies in 125–7
foreign trade 117–18, 125, 127
GDP per capita 118, 121–2, 124
household debt-to-GDP ratio 246
housing market of 158
Independence of (1992) 114
Dacia
stakeholders of 61
De Nederlandsche Bank 293
debt 176–7
external 104
Index

foreign 45, 101
government 45
mortgage 298
private sector 21, 173–4, 182, 246
short-term 47, 90
state 114
-to-GDP ratio 246
domestic commercial banks
use of automatic deposit insurance system 49–50
domestic savings 74
dynamic stochastic general equilibrium (DSGE) model 11, 49, 51
use of financial accelerator mechanisms in 49
economic forecast 42, 44
forecast errors 37–8, 40, 42, 44
impact of political considerations 45
Estonia 65, 156, 202, 208, 220, 236, 245, 252, 256, 258
economy of 252
GDP per capita 251
housing market of 159
net inflows of 252
EU Commission 206
Euro Area Periphery (EAP) 207, 210–12
Trans-European Automated Real-Time Gross Settlement Express Transfer system (TARGET2) 209, 211
euro effect
concept of 98
European Bank for Reconstruction and Development (EBRD) 206, 225
index of banking sector reform 223
index of institutional development 228, 230
European Banking Authority (EBA) 272, 278, 284
European Central Bank (ECB) 5, 64–5, 178–9, 206, 209–10, 238, 289, 298
GDP growth prediction of (2008) 37
prediction of financial crises efforts 48
supervisory powers of 64
European Commission (EC) 238, 252
Macroeconomic Imbalance Procedure (MIP) 48, 64
European Community
Exchange Rate Mechanism (ERM) II 83, 85
European Economic and Monetary Union (EMU) 7, 182, 210–12
Stage Three 173–4
European Economic Community (EEC)
Treaty of Rome (1958) 65
European Financial Stability Facility (EFSF) 208, 211
European Stability Mechanism (ESM) 208
European Systemic Risk Board (ESRB) 294
development of macroprudential liquidity risks 293
prediction of financial crises efforts 48
European Union (EU) 3, 63–4, 77, 98, 119, 171, 201, 220, 222, 245, 267–8, 277–8
Capital Requirements Directive (CRD) IV package 269, 272, 274, 278
Capital Requirements Regulation (CRR) 274
member states of 4, 59, 65, 121, 217, 222, 253
candidate/potential candidate 59, 61, 93, 268
Single Supervisory Mechanism (SSM) 4–5
Stability and Growth Pact 64, 91
unemployment rates in 3
Eurostat
Handbook on a Residential Property Price Indices 156
exchange rate 19, 23, 50, 83, 97–8, 103, 105–6, 116, 119, 152, 208, 210, 219, 246
appreciation 25
real 251
depreciation 23, 25
fixed 212, 245, 251
flexibility 99, 202, 253
fluctuation 83
foreign 201
risks 50
risks 50, 77
shocks 93
external deficit 172–3, 177–8, 182
factor-augmented vector autoregressive (FAVAR) model 52
fear of floating hypothesis 98
financial crises 23, 25, 28, 202, 204–5, 220, 236, 282
crisis management 19
crisis resolution 19–20
prediction of 45–8, 50–55
relationship with financial cycle 12–13
risk of 13
sovereign debt crisis 20, 46
financial cycles 16, 25, 27–8, 110, 236, 256, 258, 279, 293, 295–6
boom 14–15, 18
excess financial elasticity 14
in macroeconomics 3, 10–12, 27
medium-term 15–16, 237
relationship with financial crises 12–13
financial development 217–18, 224–5
impact on economic growth 218
liquid liabilities 221, 228
to GDP ratio 225
models for 224–7
variables in 225–6
private sector lending growth 221–2
stock market capitalization 223, 226
to GDP ratio 225
financial liberalization 13, 46, 96, 205
external 50
financial literacy 276
financial stability
concept of 293–4
Financial Stability Board 268
Finland
banking crisis (1991–3) 202
Helsinki 4, 6
Fisher, Irving
debt deflation theory of 281
foreign direct investment (FDI) 114–15, 125, 127, 251–2
inflows 120, 245, 280
investment development path (IDP) 120
inward 125
cycle theory 120–21, 126
foreign exchange reserves 49–50
accumulation 201, 204
Former Yugoslav Republic of Macedonia (FYROM) 59, 64, 206–7, 268, 272
living standard in 60
generalized autoregressive conditional heteroscedasticity (GARCH) model
multivariate 80, 85
generalized method of moments (GMM) 218
Georgia 268
German Council of Economic Experts 38, 45
Germany 5, 12, 124, 158, 210–11
automobile industry of 60
GDP per capita 38–41
housing cycle of 186
housing market of 158
forecast errors in 37–8, 40
sovereign debt crises 171
US subprime mortgage crisis (2007–8) 122
global vector autoregressive (GVAR) model 52
globalization 13–14
financial 7
Great Depression 281
Great Moderation 205, 236
Greece 199, 211
Group of Seven (G-7) 185–6
members of 186
Group of Twenty (G-20) 268
heterogeneity 51–3
Hodrick-Prescott (HP) filter 15, 85, 236–8, 243, 251–2, 254, 258
range 253
housing markets 147–50, 156, 161, 189, 192
asset-pricing model 148–52
boom-bust cycles of 186–8, 191–2, 194–5, 200
collateral channel 190
user cost channel 189
debt-to-income (DTI) ratio 194
indicators 152–3
loan-to-value (LTV) 194
pricing 6, 12, 154–4, 156, 158–61, 185, 251
bubbles 152–4, 156, 160, 188–9, 245
fluctuation of 149–51
supply-and-demand 148–52
Hungary 59, 158, 251
automobile industry of 61
capital inflow of 246
household debt-to-GDP ratio 246
housing market of 158
private sector debt in 246
inflation 14, 18, 25–6, 173, 251
low 18
near-term 14
trends of 25
interest rates 161
central bank 87
control over 22
deposit 229
long-term 44
mortgages 192
short-term 21
International Banking Research Network (IBRN) 53
International Financial Reporting Standards (IFRS) 288–9
International Monetary Fund (IMF) 60, 192, 194, 206, 208–9, 245, 267
Annual Meetings 4
GDP growth prediction of (2009) 37
Independent Evaluation Office 47
International Financial Statistics (IFS) database 238
Iran
Islamic Revolution (1979) 187
Italy 5, 78, 208
Japan 18–19, 23, 25
asset price bubble (1986–91) 202
housing cycle of 186
insurance industry of 22
loan-to-deposit ratio of 298
JP Morgan
financial losses of (2012) 22
Kalman filter 238, 254, 256
Kazakhstan 268
Keynesianism 281
Kosovo 59, 64, 268
Kyrgyz Republic 268
labour market 149, 161, 180–81
flexibility 181
Latvia 65, 158, 202, 208
capital inflow of 246
housing market of 158–9
Lehman Brothers
collapse of (2008) 105, 204, 207–8
liquidity 72, 107, 149, 269
buffer 98, 107–9, 111–12
eexternal 111
foreign currency 105
funding 293
global 98
market 293
regulation of 4
reserves 286
risk 301
liquidity coverage ratio (LCR) 293
time-varying 293
Lithuania 59, 65, 158, 208, 220
banking sector of 220
capital inflow of 246
housing market of 160
loan loss models 72
loans 71–2, 86–7, 102, 109, 114
corporate 69, 73
defaults on 281
domestic bank 88–90, 100
foreign 86–9, 92
long-term 87–8, 91
mortgage
FX 69, 73–4
subsidized 285
-to-deposit ratio 13, 294–300
to non-financial corporations 87
Luxembourg 206
Financial cycles and the real economy

- macroeconomics 10–11, 27, 36, 45, 48–51, 54, 64–5, 72, 76, 173, 176, 181, 220, 235–6
- financial cycle in 3, 10–12, 27
- imbalances 48
- procedure (MIP) 246
- shocks 52–3
- use of empirical data 41–2
- vulnerability 103
- countercyclical capital buffer 295–6
- early intervention 100
- framework 20, 106, 108, 111, 182
- liquidity risks 293–5
- loan-to-deposit ratio 296–300
- oversight 270
- supervision 48, 269
- Malaysia 119
- market economy 282
- mergers and acquisition 222
- minimum required foreign currency claims (MRFCC) 100
- reduction of 105
- Minsky, Hyman
- financial instability hypothesis of 281–2
- Moldova 268
- autonomy 202
- common 77, 97
- easing of 16, 25
- limitations of 23
- shocks 90
- tightening of 14, 18, 20
- Montenegro 59, 64–5, 268
- Morgan Stanley Capital International (MSCI)
- Germany index 42, 44
- World index 44
- mortgages 114–15, 174, 195
- debt 298
- foreign currency (FX)-denominated 69, 71, 73–4
- interest 192
- lending 69, 73
- secondary mortgage market 149
- net stable funding ratio (NSFR) 293
- time-varying 293
- Netherlands 150, 206, 236, 256, 258, 296
- credit-to-GDP gap of 295–6
- economy of 244
- financial cycle 244
- GDP per capita 297
- household debt of 297–8
- housing market of 244
- loan-to-deposit ratio of 296–7, 300
- New Keynesianism 11
- non-performing loan (NPL) 62, 271–2, 278, 282, 284–5, 288–90
- corporate 253
- growth of 122
- regulation of 286
- reporting standards 272
- resolution 273–4, 286, 288–9
- Norway 12
- Oesterreichische Nationalbank (OeNB) 6, 59
- Organisation for Economic and Cooperation and Development (OECD) 185, 238, 243–4, 252
- GDP growth prediction of (2009) 37–8
- members of 114, 116, 151
- Organization of Arab Petroleum Exporting Countries (OAPEC)
- oil price crisis (1973) 187
- outright monetary transactions (OMT) 212
- Phillips curve 235
- Poland 59, 69, 124, 158, 236, 246, 251, 254, 258, 268
- automobile industry of 61
- capital inflow of 246
- economy of 71, 73
- household debt-to-GDP ratio 246
- National Bank of 71, 73–4
- Portugal 78
- privatization 220, 223, 229–30
- probit model
<table>
<thead>
<tr>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>use in prediction of financial crises</td>
</tr>
<tr>
<td>47</td>
</tr>
<tr>
<td>purchasing power parity (PPP)</td>
</tr>
<tr>
<td>185</td>
</tr>
<tr>
<td>real economy 3–4, 7</td>
</tr>
<tr>
<td>GDP per capita 78</td>
</tr>
<tr>
<td>recovery and resolution plans (RRP)</td>
</tr>
<tr>
<td>275</td>
</tr>
<tr>
<td>development of 275–6</td>
</tr>
<tr>
<td>Renault Group</td>
</tr>
<tr>
<td>stake in Dacia 61</td>
</tr>
<tr>
<td>Republic of Ireland 5, 69, 199, 206–7, 211, 236, 256, 258</td>
</tr>
<tr>
<td>economy of 244</td>
</tr>
<tr>
<td>FDI inflows 245</td>
</tr>
<tr>
<td>financial cycle 244–5</td>
</tr>
<tr>
<td>housing market of 158–60</td>
</tr>
<tr>
<td>IMF-EU Bailout (2010) 245</td>
</tr>
<tr>
<td>reserve requirement 105</td>
</tr>
<tr>
<td>marginal (MRR) 101–2, 105</td>
</tr>
<tr>
<td>special (SRR) 101–2, 105</td>
</tr>
<tr>
<td>risk weight 103</td>
</tr>
<tr>
<td>Romania 59, 158, 268</td>
</tr>
<tr>
<td>household debt-to-GDP ratio 246</td>
</tr>
<tr>
<td>monetization ratio of 221, 230</td>
</tr>
<tr>
<td>Second World War (1939–45)</td>
</tr>
<tr>
<td>11, 188</td>
</tr>
<tr>
<td>Serbia 59, 64–5, 201, 268, 272, 279, 288–9</td>
</tr>
<tr>
<td>average CAR of 284, 286</td>
</tr>
<tr>
<td>banking sector of 279</td>
</tr>
<tr>
<td>business cycle of 281, 285</td>
</tr>
<tr>
<td>boom-and-bust 285–6</td>
</tr>
<tr>
<td>credit cycle of 285</td>
</tr>
<tr>
<td>economy of 290</td>
</tr>
<tr>
<td>FDI inflows in 280</td>
</tr>
<tr>
<td>foreign capital inflows in 279–80</td>
</tr>
<tr>
<td>GDP per capita 280, 282</td>
</tr>
<tr>
<td>National Bank of Serbia (NBS) 281, 285</td>
</tr>
<tr>
<td>NPL volume in 284–5</td>
</tr>
<tr>
<td>signal extraction</td>
</tr>
<tr>
<td>use in prediction of financial crises 47</td>
</tr>
<tr>
<td>Single Resolution Board (SRB) 289</td>
</tr>
<tr>
<td>Slovakia 65, 124, 158, 236, 245, 251–3, 256, 258</td>
</tr>
<tr>
<td>automobile industry of 61</td>
</tr>
<tr>
<td>capital inflow of 246</td>
</tr>
<tr>
<td>GDP per capita 253</td>
</tr>
<tr>
<td>household debt-to-GDP ratio 246</td>
</tr>
<tr>
<td>housing market of 151, 160</td>
</tr>
<tr>
<td>Slovenia 77, 83–4, 158, 251</td>
</tr>
<tr>
<td>business cycle of 77–8, 80, 83–4, 91–3</td>
</tr>
<tr>
<td>economy of 91</td>
</tr>
<tr>
<td>exports of 80–81, 93</td>
</tr>
<tr>
<td>GDP per capita 78–80, 84</td>
</tr>
<tr>
<td>household debt-to-GDP ratio 246</td>
</tr>
<tr>
<td>housing market of 151, 160</td>
</tr>
<tr>
<td>Independence of (1991) 80, 83</td>
</tr>
<tr>
<td>monetization ratio of 230</td>
</tr>
<tr>
<td>trade cycle of 91</td>
</tr>
<tr>
<td>Spain 5, 15, 69, 78, 182, 199, 206, 211</td>
</tr>
<tr>
<td>economy of 171–3, 177–83</td>
</tr>
<tr>
<td>sovereign debt crisis 171, 183</td>
</tr>
<tr>
<td>exports of 177</td>
</tr>
<tr>
<td>external deficit of 177</td>
</tr>
<tr>
<td>GDP per capita 173–6, 178</td>
</tr>
<tr>
<td>credit availability 175–7</td>
</tr>
<tr>
<td>imports of 177</td>
</tr>
<tr>
<td>labour market of 181–3</td>
</tr>
<tr>
<td>mortgage market of 174–5</td>
</tr>
<tr>
<td>stock prices 42</td>
</tr>
<tr>
<td>structural unobserved components</td>
</tr>
<tr>
<td>model 237–8, 243–6, 251–4, 256, 258</td>
</tr>
<tr>
<td>sustainability 235–6, 246, 251, 254</td>
</tr>
<tr>
<td>Sweden</td>
</tr>
<tr>
<td>banking crisis (1991–2) 202</td>
</tr>
<tr>
<td>Switzerland 12, 158</td>
</tr>
<tr>
<td>housing market of 152</td>
</tr>
<tr>
<td>systemic risk</td>
</tr>
<tr>
<td>use of Shapey value in measurement</td>
</tr>
<tr>
<td>of 51–2</td>
</tr>
<tr>
<td>Tajikistan 268</td>
</tr>
<tr>
<td>Thailand 119</td>
</tr>
<tr>
<td>Tošovsky dilemma</td>
</tr>
<tr>
<td>concept of 98</td>
</tr>
<tr>
<td>total factor productivity (TFP) growth 244</td>
</tr>
<tr>
<td>factors affecting 245</td>
</tr>
<tr>
<td>trade flow</td>
</tr>
<tr>
<td>synchronization 80, 83</td>
</tr>
<tr>
<td>trade liberalization 51</td>
</tr>
<tr>
<td>Turkmenistan 268</td>
</tr>
</tbody>
</table>
Ukraine 268
unit labour costs (ULCs) 177–8
United Nations (UN)
  Conference on Trade and Development (UNCTAD) 126
United States of America (USA)
  15–16, 209, 236, 256, 258, 276
  Congressional Budget Office (CBO) 243
  economy of 243
  Federal Reserve 201
  housing market of 148
  housing cycle of 186
  pricing of 185
  mortgage market of 22
Uzbekistan 268
value-at-risk (VAR) model 52, 87–9
  conditional (CoVAR) 52
  estimation of 87, 89
Vienna Initiative 62–3, 253–4

World Bank 267
  Annual Meetings 4
  Europe and Central Asia (ECA)
    Region Financial and Private Sector Development Department 267
  Financial and Private Sector Development Department 267
  Financial Sector Advisory Center (FinSAC) 267–71, 273–4, 276–7
  Crisis Simulation Exercises (CSEs) 271
  Joint Vienna Initiative (JVI)
    Working Group workshops 274
    strategic pillars of 269–75
    Trust Fund Agreement 267

Yom Kippur War (1973) 187
Yugoslavia
  Yugoslav Wars (1991–9) 80