Index

Aaron, Janine 7
Accelerated Cost Recovery System (ACRS), US 154
accounting scandals 91, 225
Acharya, Viral 152
acquisition, development and construction (ADC) loans 13, 154
lending standards 172–5
noncurrent rates 169–70
adjustable rate mortgages (ARMs) 92, 99, 100, 119, 124, 133, 137–8, 142, 249–50, 254
borrower mismatch 139–40
versus fixed-rate mortgages 126–31
agency mortgage securities 115, 118
Agnello, L. 183
Alakeson, Vidhya 308
Alt-A loans 82, 90, 91, 94, 131, 132, 156
Alvarez, L.J. 41
Andrews, Dan 296, 308
Angeloni, Ignazio 34
apartment housing
Europe/US 133–5
Taiwan 184
Archer, Wayne 150, 163
Argentaria 128
ARIMA forecasting models 68–9
Ashcraft, Adam 17, 94
Asian Financial Crisis (AFC) 3, 5, 46, 51, 57, 64, 78, 99, 100, 208, 211, 225, 326
Asset Backed Commercial Paper (ABCP) 87, 99, 121, 246
asset backed securities (ABS) 99, 116, 164, 208, 246
asset-based rental housing 301–7, 309
Australia, mortgage product by interest rate variability 250
Austria
adjustable mortgage rates 130
competition environment 123–4
consumer protection regulation 126
Automatic Underwriting Systems (AUSs) 91
balloon mortgages 164, 233, 236
banking crises 82, 84, 107, 112, 126
banking regulation, stability impact 119–22
banks
construction loans 167–8
permanent loans 164–5
in transmission of financial shocks 33–4
Barras, R. 187–8
Barro, Robert 333
Basel I 257
Basel II 327
Basel III 241–2, 328
Financial Stability Board 247–8
Guidance for National Authorities 243–5
implications for emerging markets 248
individual bank minimum capital conservation standards 242
net stable funding ratio (NSFR) requirements 122, 142
Notice of Proposed Rule 256
Beckmann, Daniela 62, 63
Belgium
adjustable mortgage rates 130
consumer protection regulation 128, 129
market shares of ARM versus FRM and mortgage yield curve 127
mortgage debt and housing prices 298
Berger-Thomson, Laura 180
Bernanke, Ben S. 37, 267, 275, 313
Blackley, Dixie M. 180
The global financial crisis and housing

bridge loans 163, 209–10, 211–12, 214, 215
Brubak, Leif 30
Bruggeman, William 160, 167, 168
Brzoza-Brzezina, M. 324
bucketing approach 247–8
Building Act, Taiwan 201–2
Building and Loans (B&L) 89
building material and construction
price index 188, 189, 190
building permits
floor area ratio control 187, 188, 197
Korea 65–6, 69–70, 209, 211–12, 214, 218, 221
Taiwan 182–3, 187–90
US 158, 160, 161
building societies 89, 114, 115, 121, 122, 132
Bureau of Consumer Financial Protection (CGPB), US 252
Burnside, C. 64
Busan, housing price movements 66–7
business cycles
co-movement with housing volume cycles 57–60
identification of 41–2
Korean housing market 67–8
linkages with housing cycles 316, 319–21
C-corporations 162, 163
Cabrero, A. 41
Campbell, J.Y. 86, 94, 267
Canada
housing price and rent 305, 306
mortgage product by interest rate variability 250
Canada Mortgage and Housing Corporation (CMHC) 251
capital arbitrage 256–7
capital conservation buffers 242, 247–8
capital gains 15, 85–6, 120, 132–3, 305, 307
capital gains taxes 154, 226, 308–9, 322, 325
capital requirements
developers 14, 223, 227
differentiation 323, 326, 327–8
lenders 14, 123, 142, 231, 242, 245, 251, 256, 257
Carlstrom, C.T. 267
Case, Karl E. 7, 41, 62, 297
cash-flow risk 218–22
Catte, Pietro 7, 17, 41, 42
Central and Eastern Europe
lending standards 123
monetary tightening 324
policy toolkit 326–7
central banks
Europe 122, 126, 130
and macroprudential regulation 16, 332
in model economy 276
Taiwan 197, 199
see also European Central Bank (ECB), US Federal Reserve
Chang, Chin-Oh 180, 184, 188, 197, 200
China
housing price boom–busts 83, 84
loan-to-value ratio 240, 248, 256
Cho, J.H. 67, 68
Cho, M. 84
Cho, S.H. 208
Choi, B.S. 69
Choi, Yo Chul 42
chonsei contract system 208
future of 309
and housing market volatility 303–7
linkages between chonsei deposit and house price 302–3
mechanism of 301–2
Christensen, Ian 30
Christiano, Lawrence 37
Chung, J.H. 69
Claessens, S. 320, 321
Clapp, J.M. 62
Coalition for Sensible Housing Policy, US 234–5, 236–7
Cocco, J.F. 267
Cole, Rebel 170
collateral effect 7, 8, 10, 30, 69, 105, 262–5, 267, 273, 280–81, 283, 335
collateralized debt obligations (CDOs) 136, 232–3
collateralized mortgage obligation (CMOs) 90, 116, 232–3, 255
commercial banks
Europe 114, 115, 118, 121, 128, 142–3
<table>
<thead>
<tr>
<th>Index</th>
<th>341</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea 209, 211–12, 214–17, 301</td>
<td></td>
</tr>
<tr>
<td>US 91, 114, 164–9, 171, 172, 178</td>
<td></td>
</tr>
<tr>
<td>commercial mortgage backed securities (CMBS) 156, 164–6, 176</td>
<td></td>
</tr>
<tr>
<td>commercial real estate loans (CRE) 171–5</td>
<td></td>
</tr>
<tr>
<td>commercial sector, construction spending 151</td>
<td></td>
</tr>
<tr>
<td>communication, construction spending 151</td>
<td></td>
</tr>
<tr>
<td>competition environment, stability impact 122–4</td>
<td></td>
</tr>
<tr>
<td>Condominium Management Ordinance (1995), Taiwan 202</td>
<td></td>
</tr>
<tr>
<td>‘conforming/non-conforming’ loans 90, 115, 123, 132</td>
<td></td>
</tr>
<tr>
<td>constrained households in model economy 271–3</td>
<td></td>
</tr>
<tr>
<td>responsiveness to housing prices rises 280–82</td>
<td></td>
</tr>
<tr>
<td>construction industry company types and construction processes 192–6</td>
<td></td>
</tr>
<tr>
<td>default risks 201</td>
<td></td>
</tr>
<tr>
<td>historical development 184–6</td>
<td></td>
</tr>
<tr>
<td>and housing investment 186–92</td>
<td></td>
</tr>
<tr>
<td>impact of monetary policy 180–81 lessons from 203–5</td>
<td></td>
</tr>
<tr>
<td>literature review 182–3</td>
<td></td>
</tr>
<tr>
<td>pre-sale system 181–2</td>
<td></td>
</tr>
<tr>
<td>project construction methods 192 regulations and policies 201–3</td>
<td></td>
</tr>
<tr>
<td>Construction Industry Act (2003), Taiwan 202</td>
<td></td>
</tr>
<tr>
<td>construction investment contribution to GDP growth 48, 51, 54, 56, 58, 59, 155, 156</td>
<td></td>
</tr>
<tr>
<td>economic impacts 150–52, 153</td>
<td></td>
</tr>
<tr>
<td>and housing prices 69</td>
<td></td>
</tr>
<tr>
<td>and interest rates 180–81, 183 policies to restrict over-investment</td>
<td></td>
</tr>
<tr>
<td>202–3</td>
<td></td>
</tr>
<tr>
<td>process of 193–6</td>
<td></td>
</tr>
<tr>
<td>construction finance disbursement of funds 168</td>
<td></td>
</tr>
<tr>
<td>empirical analysis of loan performance 169–77</td>
<td></td>
</tr>
<tr>
<td>financing methods 197–200</td>
<td></td>
</tr>
<tr>
<td>historical development 196–7</td>
<td></td>
</tr>
<tr>
<td>interest rate and fees 166</td>
<td></td>
</tr>
<tr>
<td>interest reserve 168</td>
<td></td>
</tr>
<tr>
<td>key findings 13–14</td>
<td></td>
</tr>
<tr>
<td>maturity 166</td>
<td></td>
</tr>
<tr>
<td>maximum loan amount 166–7</td>
<td></td>
</tr>
<tr>
<td>monitoring project progress 168–9, 176–7</td>
<td></td>
</tr>
<tr>
<td>noncurrent rates 169–70</td>
<td></td>
</tr>
<tr>
<td>payment guarantees 167–8</td>
<td></td>
</tr>
<tr>
<td>Taiwan statistics 188, 189, 190, 198, 201</td>
<td></td>
</tr>
<tr>
<td>tradeoffs between project financing and corporate financing 205</td>
<td></td>
</tr>
<tr>
<td>construction loan performance, empirical analysis 169–75</td>
<td></td>
</tr>
<tr>
<td>construction phase, real estate development 160, 161, 163</td>
<td></td>
</tr>
<tr>
<td>consumer insolvency, crisis contribution 138</td>
<td></td>
</tr>
<tr>
<td>consumer price inflation, compared to house price inflation 26, 27</td>
<td></td>
</tr>
<tr>
<td>Consumer Protection Law (1994), Taiwan 202</td>
<td></td>
</tr>
<tr>
<td>consumer protection regulation, stability impact 124–31</td>
<td></td>
</tr>
<tr>
<td>consumption contribution to GDP growth 46, 48, 50, 51, 53, 56, 57, 59</td>
<td></td>
</tr>
<tr>
<td>and housing prices 69, 279–80</td>
<td></td>
</tr>
<tr>
<td>and housing wealth 7–8, 24, 32–3, 41–5, 69, 262, 267, 297, 316</td>
<td></td>
</tr>
<tr>
<td>impact of interest rate rises 282–3</td>
<td></td>
</tr>
<tr>
<td>impact of loan-to-value ratio 103, 105–6</td>
<td></td>
</tr>
<tr>
<td>responsiveness of constrained households 280–82</td>
<td></td>
</tr>
<tr>
<td>contract deposits 208, 210–12, 223, 301</td>
<td></td>
</tr>
<tr>
<td>contractors, and project finance 213</td>
<td></td>
</tr>
<tr>
<td>corporate finance</td>
<td></td>
</tr>
<tr>
<td>Taiwan 197–200</td>
<td></td>
</tr>
<tr>
<td>tradeoffs with project finance 205</td>
<td></td>
</tr>
<tr>
<td>versus project finance 214</td>
<td></td>
</tr>
<tr>
<td>corporate structure 225–6</td>
<td></td>
</tr>
<tr>
<td>Corrigan, Paul 30</td>
<td></td>
</tr>
<tr>
<td>countercyclical capital buffers</td>
<td></td>
</tr>
<tr>
<td>concept of 240–42</td>
<td></td>
</tr>
<tr>
<td>cyclical regulatory practice in US 245–7</td>
<td></td>
</tr>
<tr>
<td>implementation of 243–5</td>
<td></td>
</tr>
<tr>
<td>implications for emerging markets 248</td>
<td></td>
</tr>
</tbody>
</table>
international regulatory practice 247–8
counterparty risk 218–22, 256
covered bonds 12, 115–16, 118, 121–2, 136, 142–3
credit enhancement 90, 210–11, 213, 214, 215
credit growth, limits on 323, 326, 328–32
credit ratings 205, 210–11, 250, 252, 255–6, 258
credit reporting agencies, over-reliance on 254–5
credit reporting standards accuracy and conflict of interest 238–9
emerging markets 240, 254
problem solving 250–51
credit risk 14–15, 91, 114, 142–3, 180, 201, 237, 240, 246, 327–8
accurate understanding and segment of 254–5
project finance 205
risk sharing 249–53
credit scoring 90, 131–2, 227, 237, 240, 246, 250, 254
model risk 91
credit-to-GDP ratio 243–5
Crowe, Christopher 9, 82, 103, 314, 325, 327

Davis, E. Philip 62, 63
Davis, J. 86
Davis, Morris A. 26, 36, 37
de Jeunesse, Elizabeth 120
De Nicolo, G. 324
debt financing, real estate development 163–4
debt service coverage ratio (DSCR) 165–6
debt service risk 126
debt-to-income (DTI) ratio
impact on default rates 236
Korea 84, 100, 102, 107, 267, 285
limits on 249, 323, 326, 329–32
US 87, 90
DeCoste, G.P. 183
default rates
Europe 112, 131
Korea 215–16, 217
US 112, 114, 233, 236–7
default risks, construction industry 201
defaults and risk-based capital
countercyclical capital buffers 240–48
implications 253–8
risk sharing and QRMs 232–40
risk sharing 249–53
delinquency rates 90–91, 94, 142, 236, 240, 255
loan performance by 172–3, 177
demand side 30–32, 187–8
mortgage lending 85–6
subsidies 307, 308
demand–supply responses, delay in 4, 314, 316, 321
Denmark
adjustable mortgage rates 130
affordable housing policies 132
banking and insurance regulation 121
consumer protection regulation 128, 129
mortgage debt and housing prices 298
mortgage finance system design 113–14, 115, 118
mortgage product by interest rate variability 250
deposit insurance 122, 154
Depository Institutions Deregulation and Monetary Control Act, (DIDMCA) US 154
depreciation rules 154
deregulation 7, 99, 119, 154, 208, 211
developers
minimum capital requirements 223
and project finance 211–12
role in accounting for market cycles and volatility 157
development finance
and corporate structure 225–6
equity participation of lenders and project evaluation improvements 224
experimenting with new financial requirements 225
key findings 13–14
minimum capital requirement 223
real estate development 161–9
redesigning 222–6
see also project finance (K-PF)
Index

development risk factors 218–22
development, option of delaying 157–8
Dib, Ali 34
Dodd-Frank Wall Street Reform and
Consumer Protection Act (2010)
231, 232–3, 251, 252
Dokko, Yoon 179
Drudi, Francesco 130
Dua, P. 71
Duca, John V. 86–7, 267, 297, 330
dynamic provisioning 14, 176, 323,
326, 328–9

early warning system (EWS)
case studies 62–3
composite crisis index and
conditional probability of crisis
occurrence 72–3, 75–7
discussion 77–9
explanatory power of composite
crisis index 73
Korean housing market 73–7
leading indicators 71–2, 74–5
Economic Recovery Tax Act (ERTA),
US 154
Edison, Hali J. 71
education sector, construction
spending 151
Eichenbaum, Martin 37
Eichengreen B. 70
Elekdag, Selim 30
Ellis, Luci 10, 180
emerging markets
lessons from countercyclical policies
248
lessons from risk retention 239–40
policy goal setting clarity 257–8
responsive capital regulations and
market growth 255–7
sustainability requirements 253–4
understanding of credit risk 254–5
employment effects 22, 92, 112, 152,
245, 321, 324, 325
Englund, Peter 296
entrepreneurs, in model economy
273–5
equipment investment
contribution to GDP growth 46, 48,
50, 51, 55, 56, 57, 59
and housing prices 69
equity financing, real estate
development
expected return 160
joint ventures 161
limited liabilities 161, 162
special allocation of ownership
interests 162, 163
taxation pass-through 162
transferability of ownership interests
162
Esteban, Gomez 62, 63
Euribor 123, 128, 129, 132
Europe
banking and insurance regulation
119–22
competition environment 122–4
consumer protection regulation
124–31
housing affordability policies 131–5
lessons for financial stability policy
135–41
mortgage finance system design
113–18
structural regulation features of
finance systems and crisis
contribution 136–8
European Central Bank (ECB) 13, 30,
118, 127, 130, 136, 334
Evans, Charles 37
exports, contribution to GDP growth
46, 48, 50–51, 55–7, 59
Faia, Ester 34
Fannie Mae 90, 91, 92, 114–15, 119,
122, 131, 234
Federal Deposit Insurance
Corporation (FDIC), US 121, 177
Notice of Proposed Rulemaking
(NPR) 233, 236
Federal Home Loan Bank Board
(FHLBB), US 152
Federal Home Loan Banks, US 152
Federal Housing Administration
(FHA), US 114, 119, 126, 131–3,
156, 245–6, 248, 251–2, 256–8
Federal Savings and Loan Insurance
Corporation (FSLIC), US 152,
155
Feldstein, S. Martin 41
Fenn, George 170
The global financial crisis and housing

Ferguson, D. 187–8
Fernández-Villaverde, Jesus 21
Ferrara, I. 41
financial instruments, experimenting with 225
financial intermediation, role of 33–4
Financial Services Authority (FSA), UK 123, 132
financial stability policy 34–5
lessons from developed economies 135–41
financial system resilience, policies to target 321–32
Finland, adjustable mortgage rates 130
fiscal incentives, leverage versus savings 132–3, 135
fiscal tools 16, 141, 314, 322, 325, 333–4
Fisher, Jeffrey 160, 167, 168
Fisher, Lynn M. 296
fixed-rate mortgages (FRM) 89–90, 92, 99, 114, 118–19, 124, 137, 142, 236, 249–50
versus adjustable rate mortgages 126–31
flex property, market size and capitalization 150
Florence, Andrew 150
Follain, J.R. 183
foreclosure 94, 172, 196, 233, 237, 252, 256
crisis contribution 138, 321
foreign-currency (FX) lending 12–13, 118, 126, 128–9, 137, 324, 330
Fostel, Ana 9, 86
France
adjustable mortgage rates 130
affordable housing policies 133
consumer protection regulation 128, 129
economic impact of house price declines 317
homeowners, social renters and private renters 300
mortgage debt and housing prices 298
mortgage finance system design 113–14, 115, 118
mortgage product by interest rate variability 250
fraudulent loan applications 91
Freddie Mac 90–92, 114–15, 119, 122, 131, 234
Freddie Mac Conventional Mortgage House Price Index 26
Fuerst, T.S. 267
Fuller, Stephen 153
Gallin, J. 86, 303
Garn-St Germain Depository Institutions Act, US 154
GDP
changes in nominal growth rate 65–6
contributions of housing volume cycles 46–57
Geanakoplos, John 9, 86
Geltner, David 158, 159
generally accepted accounting principles (GAAP) 154
Gerali, Andrea 34
Germany
adjustable mortgage rates 130
affordable housing policies 132, 133
banking and insurance regulation 121
competition environment 123
consumer protection regulation 128
housing price and rent 305
market shares of ARM versus FRM and mortgage yield curve 127
mortgage debt and housing prices 298
mortgage finance system design 113–14, 115, 118
mortgage product by interest rate variability 250
savings motives 135
sources of equity finance 134
Gertler, Mark 34, 37, 267
Giaccotto, C. 62
Gilchrist, Simon 37, 285
Ginnie Mae 90
Glaeser, E. 296
Glass-Steagall Act (1933), US 121
global financial crisis (GFC) and housing
housing and macroeconomy key linkages 6–10
motivation 3–6
summary of findings 10–16
global house price cycles 314–17
global systematically important financial institutions (G-SIFI) 247–8
Goldstein, M. 70
Goodhart, Charles 17, 180, 262, 265–7
Gordon, David 333
Gorton, Gary 9, 17, 92, 94
government
consumption and GDP growth 56, 59
credit and liquidity programmes 246–7
loan guarantees 90, 118, 122, 136, 138–9, 156, 223–4, 251–2, 257
risk sharing with private sector 251–3
government sponsored enterprises (GSEs) 90–91, 115, 118–20, 123, 136, 164, 234, 246, 251–2, 256–7
Gramlich, R. 296
Great Depression 89, 92, 152, 155, 258
Greece, adjustable mortgage rates 130
Grenadier, Steven 10, 158
Gros, D. 64
Guidolin, Massimo 120
Gwin, Carl R. 296
Gyourko, J. 296
Haughwout, A. 87
health care property, market size and capitalization 150
Heathcote, Jonathan 26, 36, 37
herding behaviour 183
Herring, Richard J. 9, 17
Hiebert, P. 64
Hofmann, Boris 17, 180, 262, 265–7
Holly, S. 64
homeownership rate
advanced economies 320
determinants of 296, 308
and global housing price cycles 297–9
and sustainability 253–4
to interest rate 236
Taiwan 188, 191, 192
US/Germany 132, 135
Hong Kong
debt service ratio 330
homeowners, social renters and private renters 300
housing price and rent 305, 306
loan-to-value/debt-to-income ratios 330, 332
Hong Kong Monetary Authority 35
hospitality property, market size and capitalization 150
hotel sector, construction spending 151
household credits and the macroeconomy 40–41, 42–5, 57
Housing Act (2011), Taiwan 182
housing affordability policies 15, 85, 103–4, 107, 141, 232, 252
stability impact 131–5, 253–4
housing crisis, definition of 70–71
housing investment and construction industry 186–92
contributions to GDP growth 46, 48, 50, 51, 54, 57–60
to fixed capital investment and GDP 186–7
GDP ratios 22, 25, 26
and non-housing investment 26, 28
housing market pressure index (HMPI), Korea 70–75
housing market structure and regulation
lessons for financial stability policy 135–43
stability impact 113–35
housing markets responsive capital regulations to improve sustainability 255–7
stabilization of 34–5
sustainability of 253–4
housing price cycles background 303–4
empirical analysis 304–7
and home ownership rate 297–9
international comparison 67, 83, 315–17
see also mortgage credit and housing price cycles
housing price inflation, and consumer price inflation 26, 27
housing price valuation 129, 137, 139–40, 142, 149–50, 157, 174–5
housing prices and consumption 69, 279–80
forecasting models 62–3, 68–70
impact of interest rates 283
linkage with chonsei deposit 302–3
and macroeconomic fluctuations 40–41, 42–5, 57
and mortgage debt 298
responsiveness of constrained households 280–82
housing price mechanism 264–5, 283
housing service consumption 26, 263–4, 268, 272, 285, 301
housing transmission mechanism 278–9
housing volume cycles
co-movement with business cycles 57–60
contributions to GDP growth 46–57
identification of business cycles 41–2
and the macroeconomy 45–6
housing wealth
and consumption 7–8, 24, 32–3, 41–5, 69, 262, 267, 279–80, 297, 316
and non-housing wealth 22, 23
supply-side effects 320–21
housing wealth-GDP ratios 22, 23
Hsieh, H.H.Y 183, 188
Huang, K.R. 184
Hungary
affordable housing policies 132
competition environment 123
consumer protection regulation 126, 129
mortgage-related securities and housing loans outstanding 116
Iacoviello, Matteo 17, 26, 30–33, 34, 36, 41, 267, 275, 277
Iceland, consumer protection regulation 126
Igan, D. 316, 317, 320
imports and GDP growth 48, 51, 55
in’t Veld, Jan 30
index trackers 120, 129–31
industrial property
economic impacts of construction spending 153
market size and capitalization 150
informal financing 198, 199–200
insurance regulation, stability impact 119–22, 137
interest rate
capping 129, 130, 137, 142
construction loans 166
impact on construction investment 180–81, 183
impact on consumption and housing prices 103–5, 282–3
introductory ‘teaser’ rates 126, 131, 137
non-Qualified Residential Mortgages 235–7, 238
rate of change in nominal rate (GRR) 65–6
in real estate booms 322, 324–5
role in Savings and Loan crisis 152, 155
role in subprime crisis 87
Taiwan 190
see also adjustable rate mortgages (ARM); fixed-rate mortgages (FRM)
interest rate risk 122, 129, 249–50, 254–5
Voicker rules 141–3
interest-only (IO) loans 99, 124–6
International Monetary Fund (IMF) 30, 113, 118, 135, 139, 334
inventory investment, contribution to GDP growth 54, 56, 57, 59
investment banks 91, 123, 210–11, 224, 227
Ioannides, Y.M. 64
Ireland
adjustable mortgage rates 130
banking and insurance regulation 121–2
competition environment 123
consumer protection regulation 124, 126, 129, 131
housing affordability policies 132
housing price boom–busts 83
mortgage debt and housing prices 298
mortgage finance system design 118
mortgage product by interest rate variability 250
mortgage-related securities and housing loans outstanding 116
Index 347

Italy
- adjustable mortgage rates 130
- affordable housing policies 133
- banking and insurance regulation 121
- mortgage debt and housing prices 298
- mortgage finance system design 115, 118

Jaffe, Austin J. 296

Japan
- homeowners, social renters and private renters 300
- housing price cycles 83, 84
- mortgage credit cycles 84
- mortgage debt and housing prices 298
- mortgage product by interest rate variability 250

Jin, Y. 180
- joint ventures 161, 162, 192
- Jumbo loans 90, 118, 131

Kaminsky, G. 70, 71, 72–3
Kang, Hidon 277
Kang, W.C. 68
Kannan, Prakash 30
Karadi, Peter 34
Karim, Dirluba 62, 63
Keen, M. 325
Kim Byung Hwa 42
Kim, Eun Young 42
Kim, H.S. 68, 69
Kim, J.Y. 69
Kim, K.S. 68, 70
Kim, K.Y. 67, 68, 69
Kim, Kyung-Hwan 297
Kim, W.J. 212
Kim, Y.S. 70
Kim, Y.W. 69
Kim, Yong 304
Kim, Young II 7, 17, 42, 45, 279
Kiyotaki, Nobuhiro 34, 264–5, 267, 271, 273
Klyuev, V. 64
Knetsch, T. 41
Ko, Sungsu 267
Kochan, B. 296
Koopman, S.J. 41

Korea
- asset-based rental housing 301–7, 309
- business cycles and recessions 41–2
- co-movement of housing volume and business cycles 57–60
- corporate structure 225–6
- credit-to-GDP approach 243–5
- development finance system redesign 222–6
- early warning system (EWS) 73–9
- homeowners, social renters and private renters 300–301
- housing and credit cycles 84, 100–106
- housing market business cycle 67–8
- housing price and rent 305, 306
- housing price cycles 63–7, 84
- housing price forecasting models 68–70
- housing prices, household credit and macroeconomy 42–5
- housing volume cycles 45–57
- housing-GDP ratio 262, 263
- loan-to-value ratio 84, 100, 102, 103–6, 107, 240, 248, 256, 329–30, 332
- mortgage and house price growth 266
- mortgage debt and housing prices 298
- mortgage market evolution 99
- mortgage product by interest rate variability 250
- policy simulations 103–6
- project finance structure and roles 209–15
- project finance trends and problems 215–22
- rental housing policy issues 308–9

Korea Asset Management Corporation 215

Korea Housing Finance Corporation (KHFC) 99, 251

Korean Housing Sales Price Index (HPI) 63–8

Lancaster, Brian 166
- land acquisition 215, 248, 256

Susan Wachter, Man Cho, and Moon Joong Tcha - 9781783472888
Downloaded from PubFactory at 09/15/2023 08:28:01AM via free access
Taiwan 183, 192–3, 196–202
US 158, 160, 161
land supply 4, 31, 57, 60, 183
land trust projects 14, 225–6, 227
Lea, Michael 250
Leamer, Edward E. 7, 9, 40, 41, 45–6, 51, 60
Lee, D. 87
Lee, J.H. 208
legislative environment
Taiwan 201–3
US 154–5
lenders
equity participation and project
evaluation 224
permanent commercial loans 164–5
and project finance 214–15
project monitoring 176–7
risk sharing 249–53
Lettau, M. 41
leverage
and links to crises 319–20
cyclical changes 124
fiscal incentives for savings versus 132–3
high leverage lending 139–40
policies to target build-up of 321–32
ratios 13, 205, 265, 273, 320
Voicker rules 141–3
Levitin, Adam 17
Lim, S.J. 70
Lin, Antsong 188
Lin, C.Y. 186–7
Ling, David 150, 163
Litan, Robert E. 10
Lizondo, D. 70
loan-to-value (LTV) ratios 115, 119, 121, 122, 131
construction loans 166–7
and consumption 103, 105–6
impact on GDP 318
impact on housing price and
consumption 103–6, 283, 284
implications of DSGE model 264–5
Korea 84, 100, 102, 107, 240, 256
limits on 246, 323, 326, 329–32
permanent loans 164, 165–6
policy simulations 278–85
Qualified Residential Mortgages 233–9
Taiwan 199, 203, 204
typical mortgages 320
US 86–8, 90, 95–8
Lombardo, Giovanni 30
Long, Charles 160, 167
López Enciso, Enrique 30
Loungani, P. 316
Lown, Cara 171
Ludvigson, S. 41
Lunde, Jens 62
Lustig, Hanno 7
Luxembourg, adjustable mortgage
rates 130
McAdam, Peter 30
McNulty, J.E. 182
macroeconomic links
consumption and housing 32–3
DSGE model of economy 268–78
implications from DSGE model 264–5
key facts 22–30
key linkages 5–10
literature review 265–7
policy initiatives 34–5
policy simulations 278–83
real estate development 150–53
real estate markets 314–19
role of financial intermediation 33–4
spread and house price growth 290–91
Vector Autoregression (VAR) model 287–9
macroprudential regulation
 crisis contribution 136
in housing booms 323, 326–32
implications of knowledge on real
estate cycles 317–19
standardized loans 175–6
supervisory tools 35
trade-off between policy
coordination and credibility 332–4
Maddaloni, Angela 173, 175
Maih, Junior 30
Malpezzi, Stephen 17
Malta, adjustable mortgage rates 130
Manski, C.F. 64
manufacturing, construction spending 151
market risk 13, 128–9, 139, 149, 160, 175, 177, 180, 218–22
risk sharing 249–53
Martin, R. 86
Mason, J. 94
maturity extensions 13, 124–6
Mayer, Chris 183
Meh, Cesaire 34
Mendicino, Caterina 30
Mete, Feridun 62, 63
Mian, Atif R. 9, 17, 41, 94
Miller, S. 71
Mishkin, Frederic S. 262, 267
mixed-use property, market size and capitalization 150
monetary policy and construction investment 180–81, 183
monetary tightening 103–5, 282–4, 322, 324–5
monetary transmission mechanism 267, 269
Montezuma, J. 308
Moon, So Sang 42
Moore 264–5, 266, 271, 273
moral hazard 137, 227, 248, 253, 256
Moran, Kevin 34
Morgan, Donald 171
mortgage brokers 128–9
mortgage credit and housing price cycles 262, 266, 316, 319–21
conceptualizing key linkages 85–9
key linkages tested 94–8
Korea 100–103
Korean policy simulations 103–6
US 92–8
mortgage credit cycles lessons for financial stability policy 135–41
stability impact of mortgage market structures and regulations 113–18
and Volcker rules for mortgages 141–3
mortgage debt outstanding (MDO) 89, 100, 101, 298
mortgage finance system design, stability impact 113–18
mortgage growth, co-movement with housing price growth 265, 266
mortgage insurance 114–15, 119, 122, 137, 246, 250–51, 255–6
mortgage insurance companies credit rating 255, 256
risk sharing 249–51
mortgage market evolution
Korea 99
US 89–92
mortgage subsidies
Europe 128–9, 132–4
Korea 99
Taiwan 97, 203
US 132–4, 155, 258
mortgages, noncurrent rates 169–70
Muellbauer, John 7, 41, 86–7, 262, 267, 279
multi-family property, market size and capitalization 150
Murphy, A. 86–7, 267
Muth, R. 183
National Association of Realtors (NAR), US 235
National Credit Reporting Association (NCRA), US 238–9
National Housing Act (1934), US 114
Navarro, I. 301
negative amortization 13, 124–6, 129, 137
Neri, Stefano 17, 26, 30–33, 34, 36
net charge-off rates, loan performance by 172–5
Netherlands adjustable mortgage rates 130
affordable housing policies 132, 133
banking and insurance regulation 121
competition environment 123–4
consumer protection regulation 126, 128
mortgage debt and housing prices 298
mortgage finance system design 115
mortgage product by interest rate variability 250
network effects 321
New Deal 114
Nishiyama, Shin-Ichi 30
noise to signal ratio (NSR) 71–2, 75
non-depository institutional lenders, permanent loans 164–5
non-housing investment, compared to housing investment 26, 28
non-housing wealth compared to housing wealth 22, 23 and consumption 33
non-prime loans 90, 115, 131–2, 137
non-recourse loans 4, 164, 165, 209, 210, 246
non-residential investment
construction spending 151–2
contribution to GDP growth 48, 51, 54, 58, 59
Office of the Comptroller of the Currency (OCC), US 169, 171, 176
office property
construction spending 151
economic impacts of construction spending 153
market size and capitalization 150
Ong, Seow-Eng 296
option contracts 160
over-investment, construction companies 181–3, 185, 187–8, 191–2, 202–3, 217
Oxley, M. 296
Pace, R.K. 71
Park, H.J. 69
Park, W. 73
patient households 31, 33–4
Pavlov, Andrey 9, 17
payment guarantee, construction loans 167–8
payment-to-income (PTI) ratio 249
Peng, Chien-Wen 188
permanent commitment 167, 168
permanent financing, commercial properties
financing terms 164
lenders 164–5
underwriting 165–6
Peydró, José-Luis 173, 175
Pinto, Edward 119, 120
Poland
affordable housing policies 132
competition environment 123
consumer protection regulation 126, 131
political economy problems 325, 326, 330
portfolio loans 156–7, 170, 175, 176
Portugal, adjustable mortgage rates 130
post-construction phase, real estate development 161
power sector, construction spending 151
pre-construction phase, real estate development 158–9, 161, 163
pre-sale system
Korea 208, 209, 211–12, 214–15, 217–23
process 200
Taiwan 15, 181–2, 185, 196, 198–200, 203–4
predatory lending 126, 239, 252
premium capture rule, non-QRMs 235, 238
prepayment impact on GDP 318
options 128, 143, 318
penalties 90, 92, 99, 164
prepayment risk 89, 90
private rental housing 299–301
policy issues 307–9
private sector
risk sharing 249–51
risk sharing with government 251–3
Private-Label Mortgage Backed Securities (PLMBS) 82, 87, 91, 92, 94, 95–8, 115, 126
pro-cyclical policies 9, 240–41, 245–6, 256, 257–8, 327–8
product risk 100
product structure regulation, crisis contribution 137
progress payment plans 168
project construction methods 192
project evaluation 14, 210, 224, 226–7
project finance (K–PF)
construction cost mark–up and credit enhancement 213
contractor role 213
developer role 211–12
differences with textbook PF finance 210
experimenting with new financial instruments 225
interest rate difference with corporate loans 214–15
lender role 214–15
lessons learned 226–7
outstanding loan trends 216
schematic representation 212
structural flaws 217–22
structure and participants 209–15
tradeoffs with corporate finance 205
trends 215–17
project finance, Taiwan 197–200
project risk 13, 149, 160, 170, 175, 177, 218–22
property management 160, 309
property taxes 133, 302, 322, 325
Proxenos, Soula 296
public housing 133–5, 181–2, 187, 299–301, 307–9
public insurance 114–15
public safety, construction spending 151
pure time series model (PTM) 62, 68–9, 70
Qualified Residential Mortgages (QRMs)
impacts of proposed standards 233–9
interest rate spread between non–QRMs and 235
lessons for emerging markets 239–40
loan-to-value requirement 233, 236–7
Notice of Proposed Rulemaking (NPR) 233
percentage of mortgages meeting standards 234
regulatory background 232–3
quantitative easing 180, 247
Quigley, John M. 7, 41, 296, 308
Rabanal, Pau 30
Rafael, Steven 296
Rappaport, Jordan 36
Real Estate Appraiser Act (2000), Taiwan 202
real estate booms
• case for policy action 319–21
 • control of macroprudential policy 332–4
 • policy options 321–32
 • policy recommendations 335
 • state of knowledge and linkages to economy 314–19
Real Estate Broking Management Act (1999), Taiwan 202
real estate development
• construction loan performance 169–75
 • development phases 158–61
 • economic impacts 150–52, 153
 • finance 161–9
 • policy implications of loan performance 175–7
 • and Savings & Loan crisis 152–7
 • and volatility 157–8
real estate investment trust (REIT) 208, 225, 226
Real Estate Securitization Act, Taiwan 197, 199
real house price indices 26, 29
recourse loans 167, 178, 210, 240
recreation, construction spending 151
refinancing 92, 128, 164, 166, 167, 204, 237, 318
regression models 32–3, 68, 69, 172–3
regulatory accounting principles (RAP) 154
Reinhart, C.M. 70, 320
reinvestment risk 89, 128
religious infrastructure, construction spending 151
Renaud, Bertrand 297
rental housing sector
• asset-based rental housing 301–3
 • evolution of 299–301
 • and housing market volatility 303–7
 • link with subprime lending 133–5
 • policy issues 307–9
rents
• empirical analysis of volatility of 304–7
 • regulation 307–8
Residential Mortgage Credit Report (RMCR) 238–9, 240
Residential Mortgage Backed Securities (RMBS) 87
Resolution Trust Corporation (RTC) 155–6
retail property
economic impacts of construction spending 151
market size and capitalization 150
retailers, in model economy 275–6
risk layering 126, 131–2, 141–2
risk retention 231–2, 251, 252
impact of proposed QRM standards 233–9
lessons for emerging markets 239–40
regulatory background 232–3
risk sharing 232, 254–5
private sector 249–51
private sector and government 251–3
risk weights 91, 242, 247, 323, 326
raising 327–8
risk, real estate development 160, 170, 175, 218–22
Roeger, Werner 30
Rogoff, K.S. 320
Rosen, S. 183
Rosner, J. 94
S-corporations 162, 163
Saiz, A. 183
Salamanca Lugo, Andrés 30
Sanai, T. 296
Sanchez, Aida Caldera 296, 308
Sandra, Roza 62, 63
Saurina, J. 329
savings
fiscal incentives 132–3
forced saving effect 10–11
motives for 134–5
pooling 89
US 120
Savings and Loans (S&L) crisis 13, 89–90, 122, 170
comparison with subprime crisis 155–7
history of 114, 152–5
Savings and Loans (S&L) institutions 82, 119, 142, 150
savings banks
Europe 114
Korea 209, 211–12, 214, 215–17, 223, 226
Scanlon, K. 296
Schuermann, Til 17, 94
Schuknecht, L. 183
Schwab, R.M. 183
Scott, Alasdair 30
seasoned properties 149, 158, 164
Selected Goods and Services Tax Act, Taiwan 203
Sellin, Peter 30
Seoul, housing price movements 66–7
Sessa, Luca 34
Setzer, R. 64
sewage/waste disposal, construction spending 151
Shiller, Robert J. 7, 41, 62
signal approach model 62–3, 71–7, 78
Signoretti, Federico M. 34
site improvement, economic impact 153
Slovenia, adjustable mortgage rates 130
Smets, Frank 37
Smyth, D. 71
Sohn, K.H. 69
Somerville, C.T. 183
Song, I.H. 103, 263, 277, 278, 280, 281, 282, 284, 287, 289, 291
Spain
adjustable mortgage rates 130
affordable housing policies 132, 134
banking and insurance regulation 121–2
competition environment 123
consumer protection regulation 124, 126, 128, 129
countercyclical provisioning 329
cyclical relaxation and tightening of underwriting 125
economic impact of house price declines 317
market shares of ARM versus FRM and mortgage yield curve 127
mortgage debt and housing prices 298
mortgage finance system design 118
mortgage product by interest rate variability 250
mortgage-related securities outstanding 116
speculative demand 5, 9, 324, 329
spillovers 30–32, 64, 78, 218, 308, 316
stage payment plans 168, 177
State Codes of Conduct, US 123
Steindel, Charles 41
Stephens, Mark 303
stock market cycles 82
Stock, J.H. 63
Stock-Watson Index 69, 70
Strange, W.C. 183
structural forecasting models 62, 68, 69, 70
Su, C.K. 186–7
subprime crisis
causes of 87, 119, 126, 180, 241
comparison with Savings and Loans crisis 155–7
policy implications 12, 84, 107, 231
subprime loans
and affordable housing 133–5, 253
compared with conventional loans 237
mortgage products 92
origins 90
securitizing 82–3
Sufi, Amir 9, 17, 41, 94
Suh, S.H. 63, 67, 68, 69, 70, 71
supply side 30–32, 182–3, 188, 192
effects of housing wealth 320–21
mortgage lending 86–7
subsidies 307
Sweden, mortgage debt and housing prices 298
Switzerland, mortgage product by interest rate variability 250
synchronization 12, 64, 78, 297
systemic risk 85, 112, 141, 255–6, 303
Taiwan
Census statistics related to housing 188, 191, 192
construction companies and construction processes 192–3
construction finance 196–201
construction industry regulations and policies 201–3
construction processes 192–6
consumer price index 188, 189, 190
descriptive statistics 188, 189
‘Essential Points for Improving the Investment Environment’ (1977) 196
financial environment 180–81, 188, 203–4
historical development of construction industry 184–6
housing investment and construction industry 186–92
housing prices 188, 189, 190
infrastructure investment 192
project construction methods 192
‘Tax and Financial Measures Related to the Healthy Development of the Construction Industry’ 203
tradeoffs between project and corporate financing 205
Taiwanese Stock Market Exchange 188, 189, 190, 193, 195
take-out commitment 167, 178
Tan, W. 182
Tax Reform Act (1986), US 154
taxation
credit systems 35, 133, 308, 309
in equity finance 162
in real estate booms 322, 325
US reform 154–5
tenant facilities/improvement 153, 159, 160, 161
tenant protection 307, 308
tenants
borrowing from 301–3, 309
right-to-buy policy 122, 134, 298
Term Asset-backed Securities Loan Facility (TALF) 246
Term Auction Facility 246
Term Deposit Facility 246
Terminating Building Societies (TBS) 89
third party guarantees 205, 224
Three Bureau guarantees 205, 224
Three Bureau Merge Report (TBM) 238–9
tilt problem 89
Topel, R. 183
Tracy, J. 87
transaction costs 263–5, 268–74, 277, 321–2, 325
transportation, construction spending 151
Troubled Asset Relief Program (TARP) 246
Turnbull, G.K. 301
Uhlig, Harald 37
UK
adjustable mortgage rates 130
banking and insurance regulation 121, 122
competition environment 123
consumer protection regulation 124, 128, 129, 131
economic impact of house price declines 317
homeowners, social renters and private renters 298, 300
housing affordability policies 132–3, 134
housing price and rent 305
housing price cycles 83
mortgage debt and housing prices 298
mortgage finance system design 114, 115, 118
mortgage product by interest rate variability 250
sources of equity finance 134
universal bank system and leverage 117
unconstrained households, in model economy 268–72, 274–7, 281–2, 292–3, 294
underwriting
agency problems 250, 251, 253
cyclical leverage changes 124
emerging markets 254
GSE guidelines 90
IT-driven innovation 90–91
monitoring standards 175–6
other non-price terms (ONPTs) 9, 84, 87, 89, 94
permanent commercial loans 165–6
regulatory controls 84, 103–6, 107, 137, 253
risk retention and QRMs 232–40
standards 13, 14–15, 82, 87, 141, 149, 154, 170–72, 178, 231–2, 241, 245, 249
Urban Renewal Act (1998), Taiwan 202
US
banking and insurance regulation 119–22, 154
competition environment 122–4
construction finance 204–5
construction loan performance 169–77
consumer protection regulation 124–31
consumption and housing wealth 22, 24, 32–3
credit-to-GDP approach 243–5
cyclical regulatory practice 245–7
development finance 161–9
economic impact of house price declines 317
economic impacts of real estate development 150–53
homeowners, social renters and private renters 298, 300
house price inflation and consumer price inflation 26, 27
housing affordability policies 131–5
housing and credit cycles 84, 92–8
housing investment and non-housing investment 26, 28
housing investment-GDP ratios 22, 25, 26
housing market reform 251–3
housing price and rent 305, 306
housing price cycles 82–3
housing volume fluctuations 59–60
housing wealth-GDP ratios 22, 23
loan-to-value (LTV) ratios 86–7, 90, 95–8, 204
market shares of ARM versus FRM and mortgage yield curve 127
mortgage debt and housing prices 298
mortgage finance system design 113–18
mortgage market evolution 89–92
mortgage product by interest rate variability 250
mortgage-related securities outstanding 116
real estate development finance 161–9
real estate development process 158–61
real house price indices 26, 29
residential construction spending 150, 151–2
risk retention and QRMs 232–40
Savings & Loan crisis 152–7
structural regulation features of finance systems and crisis contribution 136–8
US Department of Housing and Urban Development (HUD) 132, 237, 245, 251–2
US Federal Reserve 87, 135, 168–9, 171, 176, 246–8, 256
US Housing Price Index (HPI) 64–7, 78
US National Income and Product Accounts (NIPA) 26
US Securities and Exchange Commission (US SEC), Office of Credit Rating 250, 252
user permits, Taiwan 187–8, 189, 190

VA loans 156
Van der Klaauw, W. 87
Van Nieuwerberg, Stijn 7

Vansteenkiste, I. 64
Vigna, O. 41
Volcker, Paul 141–3
Wachter, Susan M. 9, 17
wage rigidity 32
wage share 31–2
Walentin, Karl 30
Wang, M.T. 186–7
Ward, Charles 200
warehousing, economic impacts of construction spending 153
water supply, construction spending 151
Watson, M.W. 63
Wheaton, William C. 10
White, Lawrence 170
Williams, Joseph 157
Wong E. 332, 337
Wong, J.L. 332
Wong, Y.C. 197
Woodford, Michael 21, 37
Wouters, Rafael 37
Yang, Fang 37
Yang, Junmo 277
yield curve 85, 87, 107, 126–9, 152
yield spreads 89, 95–8
Yoon, J.H. 68
Yoon, Yeosun 267
Young Il Kim 17
Zabel, J.E. 64
Zeng, Z. 180