

Index

Please note that 'IP' stands for 'Intellectual Property', while 'IPR' represents 'Intellectual Property Rights'.

- AANZFTA *see* ASEAN-Australia-New Zealand FTA (AANZFTA)
- Abbott, Frederick M. 51, 78, 83, 248, 318, 394, 398
 - on forces of change, 6–7, 8, 13, 14, 15, 26, 31
- Abbott, Ryan 31
- ABC (Brazilian Cooperation Agency) 115–16
- Abuja summit, African Union
 - Assembly Decision (2005) 264
- ACTA (Anti-Counterfeiting Trade Agreement) 8, 189, 190, 338
 - and United States 402–3
 - world patent order, geo-politics 46, 52, 55–6, 60
- Action Plan on Agriculture (2011) 113
- Actuarial Society of South Africa (ASSA) 269
- Adcock, A. 306
- Africa
 - healthcare 261–2
 - Patent Office 266–7
 - pharmaceutical sector 262–3
 - plans to increase production 264–6
 - sub-Saharan Africa 255, 261, 262
 - see also* South Africa
- African Regional Intellectual Property Organization (ARIPO) 266, 287
- African Union, Pharmaceutical Manufacturing Plan for Africa 265
- Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) *see* TRIPS Agreement (Agreement on Trade-Related Aspects of Intellectual Property Rights)
- Agreement on Trade-Related Investment Measures (TRIMS) 21
- Airbus Consortium, EU 32
- Al-Ali, N. 340
- Allison, J.R. 158
- Alter, Karen 47, 52
- America Invents Act (AIA), 2011 397
- amphotericin B (antifungal) 280
- Anatomical Therapeutic Classification (ATC) 279
- Andean Community 47
- Andhra Pradesh Pollution Control Board 258
- antibiotics 258
- anticoagulant medicines, Thailand 26
- “anti-commons tragedy,” biomedical research 69
- Anti-Counterfeiting Trade Agreement (ACTA) *see* ACTA (Anti-Counterfeiting Trade Agreement)
- antiretroviral (ARV) medicines 26, 108
 - South Africa 256, 257, 258, 259, 268–9, 277, 284–5
- ANVISA (Brazilian drug regulatory authority) 5, 14, 16, 139–40, 148, 149
- Apple Computer, conflict with Samsung 28–9
- Appleton, Arthur F. 231
- Arab Middle East region 5, 26–7
 - biotechnology research-pharmaceutical manufacturing park, Dubai 27
 - capacity and resources 344–6
 - checks and balances, lack of 343–4
 - data exclusivity 337

- IP policy 329–49
- lack of coordination and fragmentation of policy-making 339–43
- lack of regional and international agenda 346–7
- main challenges in patent policy 333–4
- patent protection 330–3
- R&D investment 343, 347
- regime flexibilities, utilization and use 334–5
- states comprised of 331
- TRIPS Agreement 330, 337, 338–9, 340
- TRIPS-Plus standards 336–9
- Arab Spring 329, 347
- Arbitration Court for Intellectual Property Rights (Patent Court), Russia 22, 235, 236
- ARIPO (African Regional Intellectual Property Organization) 266, 287
- Ariyanuntaka, V. 321
- Arrow, K. 62, 82
- ASEAN *see* Association of Southeast Asian Nations (ASEAN)
- ASEAN Economic Community (AEC) 306
- ASEAN Working Group on Intellectual Property Collaboration (AWGIPC) 306, 307
- ASEAN-Australia-New Zealand FTA (AANZFTA) 308–13
 - patents, trademarks and copyright 309–12
 - protection of genetic resources, traditional knowledge and folklore 312–13
- Asian Tigers 394
- ASPEC (ASEAN Patent Examination Collaboration Program) 307, 323
- Aspen-Pharmacare Oral Solid Dosage facility, Port Elizabeth (South Africa) 264
- ASSA (Actuarial Society of South Africa) 269
- Association Agreements (AAs) 336
- Association of Southeast Asian Nations (ASEAN) 5, 220
 - composition 25
 - Economic Blueprint 307
 - Framework Agreement on Intellectual Property Collaboration 306
 - IP integration 306–8
 - IP Right Action Plan, 2004–10 307
 - IP Right Action Plan, 2011–15 307
 - Patent Examination Collaboration Program 307
 - Secretariat 307
 - and Thailand 305–25
 - TRIPS Agreement 309, 311
- Austin, Graeme 51
- authoritarian capitalism 6
- Avafia, Tenu 280
- AWGIPC (ASEAN Working Group on Intellectual Property Collaboration) 306, 307
- Ayres, I. 83
- Ayyangar, Justice N. Rajagopala 191–2
- Babu, A.K. 311
- Baev, Andrei A. 228
- Balkin, J. 298
- Banerjee, S.B. 119
- Bannenberg, Wilbert 31
- Barton, John 127
- Battistelli, B. 129
- Bayer v. Union of India* (2013) 21
- Benhabib, J. 105
- Benkler, Yochai 10
- Benliel, Daniel 248
- Benvenisti, Eyal 50, 59–60
- Berger, Jonathan 280
- Berthels, N. 364
- Bespalov, Nikolay 240
- Bessen, I. 157
- beta-lactam antibiotics 258
- Bhagwati, Jagdish 49
- Bilateral Investment Agreements (BITs) 336
- bio-diverse developing countries 51
- biotechnology
 - bio-fuels 121
 - bio-piracy 54
 - biotechnology research-pharmaceutical manufacturing park, Dubai 27

- impact of emerging market filings
 - on Europe 363
 - re-examination of balance of interests, Brazil 147–8
- Biotechnology Association (patent lobby) 17
- Bird, Robert C. 234, 239, 242
- Blignaut, L. 298
- Blueprint, ASEAN Economic Community 306
- Boehringer-Ingelheim, cases brought against 24, 278, 280
- Bolar exception, patent infringement 174–5, 176, 281–2
- Boldrin, M. 61, 84, 98
- Bond, Patrick 54
- Borges Barbosa, Denis 13, 14, 138, 141, 146, 147
- Borschiver, S. 142
- Bourgeois Democratic Reform Movement, China 159
- Braharnyk, Alexander 246
- Braithwaite, John 4, 78, 83–90, 95, 400
- Braithwaite, V. 88, 90
- Branstetter, L.G. 70
- Brazil 135–51
 - ABC (Brazilian Cooperation Agency) 115–16
 - ANVISA (Brazilian drug regulatory authority) 5, 14, 16, 139–40, 148, 149
 - biotechnology balance of interests, re-examination 147–8
 - ‘Buy Brazil Act’ (2010) 15
 - divided standpoint to local-centred perspective 135–6
 - domestic market 4
 - emerging actors 139–40
 - history and current situation 13–16
 - Industrial Property Code, 1996 136, 142
 - Industrial Property Law, 1996 300
 - Innovation Law 140
 - Interdepartmental IP Steering Group (GIPI) 140
 - and international patent regime 3
 - Ministry of Health 140, 148
 - new policy perspectives 136–7
- Patent and Trademark Office (INPI) 14, 16, 141
 - as source of problems 142–5
- patents in
 - patents and changing local interests, re-examination 148–9
 - patents as local demand 140–1
 - patents versus PVPs 146–7
- pharmaceutical sector 5
- “pipeline” provision 136
- PTO patent examiner as relevant player 145–6
- R&D investment 147, 149
- re-examination of biotechnology balance of interests 147–8
- technology transfer debate 106
- TRIPS Agreement 14, 136, 137–9 and WIPO 137, 138, 139
- BRICS (Brazil, Russia, India, China and South Africa) 4, 5, 8, 19, 23, 86
 - and India 188
 - situation in 11–12
 - Summits 113
 - see also* emerging markets; *specific countries*
- Bristol-Myers Squibb (BMS) 280
- Broad Institute 89–90
- Broadbent, Christian L. 232
- Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure, 1977 310
- Budylin, Sergey 226
- Burn-Murdoch, John 238
- Burrell, T. 286, 287
- Burris, S. 88
- Cahoy, Daniel R. 234, 239, 242
- Canada – Patent Protection of Pharmaceutical Products* (2000) 13, 175
- Cancun talks (2003) 52
- capitalism, authoritarian 5
- capreomycin (drug) 277
- carbon capture, patenting in 122, 125
- Carson, Rachel 84
- Castells, Manuel 22
- Castro, A.C. 145

- catch-up, economic 101
- CBD (Convention on Biological Diversity) 51, 172, 313
- central banks 83, 89
- cephalosporin 258
- CET (clean-energy technologies) 121, 122, 123
- chaebols, South Korea 29
- CHAI (Clinton Health Access Initiative) 258
- Chang, H. 66, 67, 301
- Chang, Ha-Joon 49
- change, impact of
 - background 3–11
 - reaction in developed countries 27–9
 - situation in the emerging markets 11–25
- Charnovitz, Steve 232
- Chen, Tony 59
- China 11, 155–79
 - abuse of patent rights, preventing 170–5
 - Bourgeois Democratic Reform Movement 159
 - Chinese Patent Law
 - establishment (1979–1984) 159–61
 - first amendment (1992) 159, 161–3, 163
 - provisions of Patent Law 1984 160–1
 - second amendment (2000) 159, 163–4, 170
 - third revision (2008) 159, 165–75
 - clean-energy technologies (CET) 122
 - codification of pre-litigation evidence preservation 167
 - competition law 18
 - compulsory disclosure rules for inventions relying on genetic resources 172–4
 - compulsory licensing system 18, 162–3
 - improving 170–2
 - concept of ‘patent’ in 158
 - co-owned patents, encouraging exploitation 169
 - whether a developing country 5–6
 - domestic market 4
 - economic research and patent system, gap between 64
 - enhancement of innovation capability 165–6
 - Ethiopia, pharmaceutical collaboration with 108
 - exceptions to patent infringement
 - Bolar exception introduced 174–5, 176
 - parallel imports explicitly permitted 174
 - exclusive rights to offer for sale
 - granted to design patentees 167
 - facilitating dissemination of patent information 168
 - Five-Year Plan (2010) 57
 - founding of People’s Republic (1949) 159
 - and geo-politics of world patent order 56–9
 - geothermal technology 123
 - and Germany 160
 - historical development of patent system 158–64
 - history and current situation 16–18
 - increased infringement damages 167–8
 - Interim Regulations on Award for Devices (1912) 159
 - and international patent regime 3
 - litigation experience 58, 59
 - Measures for Compulsory Licensing of Patent Implementation (2012) 171
 - Medium- to Long-Term Plan for Scientific and Technological Development (2006) 56
 - as middle-income economy 39, 44–5
 - MLP (National Outline for Medium and Long Term Science and Technology Development Planning (2006–20) 155
 - National Economic and Social Development, 12th Five-Year Plan (2011–15) 156
 - National Intellectual Property Strategy (NIPS) 57, 169
 - National Patent Development Strategy (2011–20) 168
 - OECD IP practices, embrace for strategic advantage 48, 56–60
 - patent boom in 37, 39, 155–6, 164

- Patent Office 16, 69
- patent quality challenge facing 156–8
- patentability standard raised 166
- prior art defence, adding provisions on 169
- as ‘Priority Foreign Country’ 161
- promoting utilization of patents 169–70
- public, safeguarding legitimate rights and interests of 170–5
- R&D investment 16–17, 156, 168
- Regulations to Promote Industrial Property (1898) 159
- removal of approval requirements for technology transfer to foreigners 170
- safeguarding legitimate rights and interests of public and preventing abuse of patent rights 170–5
- South-South technological collaboration 114
- State Council National Intellectual Property Strategy 57, 164
- State Intellectual Property Office 57
- strengthening of patent protection 167–8
- technology transfer debate 106, 107
- TRIPS Agreement 17, 163, 174
- and United States 71, 395, 399
- utility model and design patents 16, 42, 56, 58, 157, 160
- WTO accession (2001) 17, 56, 163
- Chint (Chinese firm) 58
- Chitemerere, Chris 259
- CIMMYT (International Maize and Wheat Improvement Center) 96, 97
- CIPRH (Commission on Intellectual Property Rights, Innovation and Public Health) 260, 284
- Cipla Pharmaceuticals (India) 108
- Clarke, Richard A. 17, 392
- clean-energy technologies (CET) 121, 122, 123
- climate change
 - ‘Annex I countries’ 122
 - collaborative platforms, examples 127
 - cross-national investors and ownership of patents 124–6
 - development strategies of emerging economies 119–29
 - patent statistics 121–6
 - patents and clean energy, study 121–4
 - patenting across countries 123–4
 - trends over time 122–3
 - role of IP offices 128–9
 - suggestions 126–9
 - and technology transfer debate 120–1, 128
 - transparency improvement 128
- Climate Change Summit, Copenhagen (COP 15), 2009 120
- Clinton Health Access Initiative (CHAI) 258
- clopidogrel (drug) 319–20
- Cohen, Jillian Clare 277
- Collier, Paul 48
- Colombo, M.G. 63
- COMESA (Common Market pharmaceutical project for Eastern and Southern Africa) 264
- command economies 5
- Commission on Intellectual Property Rights, Innovation and Public Health (CIPRH) 260, 284
- Companies and Intellectual Property Commission (CIPC), South Africa 282
- compensatory liability-based models 127, 212
- Competition Commission, India 209
- Competition Commission, South Africa 24, 279
- competition law
 - China 18
 - emerging markets, competition in innovation from 404–6
 - India 209
 - new form of competition 394–6
 - South Africa 24, 279, 280–1
 - unfair competition, addressing 398–9
 - in United States 394–6, 398–9, 404–6
- complexity 79–80
- compounded annual growth rate (CAGR) 262

- confirmation patent concept 26
 Convention on Biological Diversity (CBD) 51, 172, 313
 Cookson, Clive 11
 Cooper, R.N. 85
 co-owned patents, China 169
 Cornelli, F. 66
 Correa, Carlos M. 31, 78, 79, 293, 321, 366, 367
 Cottier, Thomas 6–7
 counterfeit trademarks 338
 counter-harmonization strategy 54
 Court of Appeals for the Federal Circuit (CAFC), Japan 376
 credit card services 28
 cross-national investors and ownership of patents 124–6
 cryptococcal meningitis 280
 Cuban pharmaceutical biotech and national health system 260
 cycloserine (drug) 277
- Dechezlepêtre, A. 95
 Delhi Declaration (2012) 113
 Delmastro, M. 63
 Department of Defense, US 32
 Department of Intellectual Property (DIP), Thailand 316, 318–19, 322, 323
 Department of Trade and Industry, South Africa 24
 Desidério, M. 145
 design patentees, exclusive rights to offer for sale granted (China) 167
 developed countries 5, 119
 influence on policies and practices 288–9
 reaction to emerging markets 27–9
 developing countries 5, 9
 bio-diverse 51
 forum-shifting 50–1
 least developed countries 107, 108, 109, 112
 outside emerging markets 25–7
 technology transfer debate 101, 107, 108
 see also emerging economies/
 markets
- Development Agenda (2007), WIPO 52
 diabetes (type 2), and genetic differences 90
 dialogue, responsive regulation 87
 Dietz, Adolf 233
 DIP (Department of Intellectual Property), Thailand 316, 318–19, 322, 323
 disclosure rules, compulsory
 China 172–4
 and patent rights 62
 dispute settlement, and WTO 55
 DOCDB (master documentation database), EPO 124
 docetaxel (cancer treatment) 290
 Doctrine of Equivalents, Japan 382, 383
 Doha Declaration on TRIPS and Public Health (2001) 24, 51, 52, 54, 64, 172, 298
 Decision of the General Council on the Implementation of Paragraph 6 243
 Downs, George 50, 59–60
 Drahos, Peter 61, 128, 149, 158, 310, 345, 361, 367
 emerging markets and world patent order 4, 6, 7, 27, 29, 30–1
 patent offices 80, 84, 85
 responsive regulation 88, 89
 and United States 398, 400
 world patent order, geo-politics 46, 49, 56, 57, 58
 Dreyfuss, Rochelle 47, 52, 53
 Dronina, Olga 235
 Duncan, Jeffrey 58
 Dybul, Mark 257
- East African Community Regional Pharmaceutical Manufacturing Plan of Action 2012–16 265
EBay Inc. v Mercexchange L.L.C. 547
 US 388 (2006) 392 291
 Eberhardt, M. 157
 econometric studies 75
 economics perspective, patent system 61–77
 basic economic theories behind patent system 62–3
 catch-up, economic 101

- cross-country economic growth, and patent protection 72–3
- debate on patent system 63–4
- gap between economic research and patent system 64
- monopolies, potential 62, 63
- past economic studies, knowledge gained and limits of knowledge 65–74
- policy suggestions 74–5
- and United States 396–7
- efavirenz (EFV), drug 258, 278, 319
- Egypt
- fragmentation of policy-making 339–40
- hepatitis C 335
- Patent Law (2002) 335
- People's Assembly 340
- Eisenberg, R. 67, 69, 358
- El Said, Mohammed 8, 86, 330, 335, 336, 339, 345
- Eli Lilly and Company v. Government of Canada* (2012) 8
- elite, global 29–30
- Embrapa (agricultural agency) 14, 146, 147
- emerging economies/markets
- developing countries outside 25–7
- development strategies (climate change) 119–29
- governmental initiatives, examples 114–16
- historical overview 5–6
- incentives, local production 12
- new intergovernmental initiatives within 113
- patent offices in 85–6
- situation 11–25
- technological exchange, facilitation of 111–16
- enforcement pyramid 87–8, 99
- Ensign- Bickford (South Africa) (Pty) Limited and Others v AECI Explosives and Chemicals Limited* 1998 BIP 271 (SCA) 281, 288
- EPO (European Patent Office) 7, 85, 94, 121, 197, 316, 357, 363, 364
- impact of emerging market filings on Europe 361–2
- master documentation database 124
- 'Scenarios for the Future' (2007) 127
- Technical Board of Appeal 364
- Escobar, A. 120
- Ethiopia, pharmaceutical collaboration with China 108
- Eugster, Esprit 226
- Europe, impact of emerging market patent systems on 366–8
- filings 356–66
- horizontal regulatory function, revitalizing (dynamic perspective) 364–6
- vertical regulatory function, revitalizing (static perspective) 361–4
- European Commission Market Access Database 15
- European Patent Convention (EPC) 7, 356
- European Patent Office (EPO) *see* EPO (European Patent Office)
- European Union Chamber of Commerce (EUCCC) 156, 176
- European Union (EU)
- and Netherlands 55
- patent validation agreement with Morocco 26
- and United States 401–2
- evergreening practice 47, 54
- FAO (Food and Agriculture Organization) 313
- FDI (foreign direct investment) 4, 11, 13, 18, 105, 295
- and technology transfer 71, 104, 105, 109
- Federal Trade Commission, US 25
- Fernandes, Ana Margarida 199
- Filoché, G. 137, 148, 150
- financial crisis (2008) 46
- financial instability, persistent global 86
- Fink, Carsten 70, 82
- Flynn, Matthew 257
- Food and Agriculture Organization (FAO) 313
- foreign direct investment (FDI) *see* FDI (foreign direct investment)
- forum-shifting 48, 50–3
- horizontal 51, 52

- fossil fuels, reliance on 120
- Free Software movement 90
- Free Trade Agreement (FTA)
provisions, US 47, 336–7, 343
- Free Trade Area of the Americas
(FTAA) 138
- Freeland, Chrystia 30
- free-rider problem 62
- “Friends of Development” coalition
(SPLT) 52
- Frost, Robert 78
- Gambrill, Sara 27
- Ganea, P. 161
- Garnsey, E. 80
- GATT (General Agreement on Trade
and Tariffs) 50, 139, 394
Panel 392
see also Uruguay Round of Trade
Negotiations (1986–94)
- Gautier, C. 306
- Gehl Sampath, Padmashree 32, 86,
102
- General Agreement on Trade and
Tariffs (GATT) 50, 139
- Generalized System of Preferences
(GSP) 49
- genetic resources, inventions relying on
(China) 172–4
- geothermal technology 122, 123
- Germany, and China 160
- Gervais, D. 88
- Ghidini, G. 84
- Ginarte, J.C. 73
- GIPI (Brazilian Interdepartmental
Steering Group) 140
- Glass, J.A. 71
- GlaxoSmithKline (GSK) 248
cases brought against 24, 278, 279
- Global Fund for AIDS, TB and
Malaria (GFATM) 256
- Global Innovation Index Ranking
(2012) 333
- global interest patterns
emerging markets 30–1
global elite 29–30
- global payment services 28
- globalization 75, 84, 396
- Good Manufacturing Practices
(GMP), WHO 265
- Gopalakrishnan, N.S. 311
- Goto, A. 380
- Gould, D.M. 72
- Govaere, I. 366
- Government Procurement Agreement
(GPA), 1994 15, 274
- governmental initiatives, examples
114–16
- Graham, Stuart J.H. 404
- Grassley, Chuck 91
- Grau-Kuntz, K. 147
- Green, J. 66, 226
- Griswold, Daniel 234
- Gruben, W.C. 72
- GSP (Generalized System of
Preferences) 49
- Guang Xu (Chinese Emperor) 159
- Guellec, D. 360
- Guo, S. 160
- Gurry, Francis 6–7
- Hague Conference, adoption of Article
5A(2) in 1925 12
- Hall, Bronwyn H. 37, 198, 362
- Hardin, Garrett 69
- harmonization, patent law 7–8, 47
- Hartzenberg, Trudi 280
- Hasan, Shahid 256
- Hayek, F.A. 78–9
- ‘headquarter effect’ 126
- healthcare
Africa 261–2
South Africa 267–8
- Helfer, Laurence 47, 51, 52
- Heller, M. 67, 69, 358
- Helmers, C. 157
- Helpman, E. 72
- Henninger, T. 173
- hepatitis B, medications 55
- Heydon, K. 309
- HIV/AIDS 53–5, 238–9, 255, 256, 257,
258, 261
antiretroviral medicines 26, 108, 256,
257, 258, 259, 268–9, 277, 284–5
and China 18
and Indonesia 55
pandemic 51, 54
and Russia 238–9
and South Africa 24, 53–4, 255–60,
279

- tuberculosis, in AIDS patients 269–70
- Hope, J. 90
- Hu, A.G. 164, 295
- Huawei (Chinese firm) 59
- Huys, I. 364
- ICTSD (International Centre for Trade and Sustainable Development) 121
- Idris, K. 61
- IGCC (integrated gasification combined cycle) 122
- IMPACT (International Medical Products Anti-Counterfeiting Taskforce) 190, 220
- import substitution policy 12
- IMSA (Innovative Medicines of South Africa) 267
- incentives, local production 12
- India 183–221
 - Biological Diversity Act, 2000 215–16
 - and clean energy technologies 123, 124
 - competition law and IPRs 209
 - compulsory licensing 196
 - Decade of Innovation (2010–20) 213
 - domestic market 4
 - engagement with multilateral processes in field of IP 189–221
 - history and current situation 18–21
 - innovation
 - domestic, stimulated by system or inhibited 196–9
 - type of ecosystem needed 213–21
 - and international patent regime 3
 - litigation 208
 - Monopolies and Restrictive Practices Act, 1969 209
 - National Innovation Council 213, 221
 - Open Source Drug Discovery 212, 214
 - Patent Act, Section 3(d) 20, 54
 - Patent Appellate Body 211
 - Patent Office 203–4, 205–7
 - patenting in 199–204
 - legal system capacity to address advances in patent law 207–9
 - patent system 191–6
 - whether political economy of patents 209–12
 - Patents (Amendments) Act, 2005 193
 - Patents Act, 1970 193, 196, 211, 299
 - Patents and Design Act, 1911 191
 - R&D investment 19, 191, 197, 198, 218
 - restriction of information technology imports 21
 - Supreme Court 20–1
 - technology transfer debate 106, 107
 - trade-related indicators 185
 - traditional knowledge resource classification system 20
 - TRIPS Agreement 190, 210, 212 and United States 21
 - world, engagement with 184–7
 - and world economic order 187–9
- India – Certain Measures Relating to Solar Cells and Solar Modules* (2013) 21
- individual consumer 31
- industrial designs 43, 44
- Industrial Development Corporation (IDC), South Africa 273
- Industrial Property Code (1996), Brazil 136, 142
- Industrial Revolution, UK 9
- information
 - China, dissemination in 168
 - gathering of, patent offices 89–90, 94
 - information asymmetry, patent life 65
 - technological, free revealing 89–90
- information and technology (ICT) sector, Brazil 15
- infringement of patents
 - China
 - damages, increased 167–8
 - exceptions to infringement 174–5
 - exceptions to
 - Bolar exception introduced 174–5, 176, 281–2
 - China 174–5
 - parallel imports explicitly permitted 174

- innovation
 - blocking by patents 10
 - domestic, stimulated by system or inhibited (India) 196–9
 - enhancement of capability (China) 165–6
 - institutionalism for 84, 98
 - under-investment in 63
 - and IP statistics 82
 - “stepping-stone” 67
 - technological 81
 - trade-offs, potential monopolies 62
 - type of ecosystem needed (India) 213–21
- Innovative Medicines of South Africa (IMSA) 267
- Inoue, Y. 378, 379
- INPI (Brazilian Patent and Trademark Office) 14, 16, 141
 - as source of problems 142–5
- integrated gasification combined cycle (IGCC) 122
- Intellectual Property Basic Act, 2002 (Japan) 374
- intellectual property rights (IPRs) *see* IPRs (intellectual property rights)
- Intellectual Property Strategic Programs, Japan 374–5
- Intellectual Property Strategy Headquarters, Japan 374
- intergovernmental initiatives, new (within emerging economies) 113
- Interim Regulations on Award for Devices (1912), China 159
- intermediate technologies 30
- International Centre for Trade and Sustainable Development (ICTSD) 121
- International Code of Conduct on Transfer of Technology 100
- International Development Cooperation Law (LCID), Mexico 114
- International Forum on the Geopolitics of Culture and Technology 119
- International Medical Products Anti-Counterfeiting Taskforce (IMPACT) 190, 220
- International Patent Classification System 20
- International Trade Commission, US 234
- international trade flows, and protection strength of IPRs 70–1
- International Treaty on Plant and Genetic Resources for Food and Agriculture (ITPGRFA), FAO 313
- International Union for the Protection of New Varieties of Plants (UPOV Convention), 1991 137, 313
- inventions, non-rival and non-excludable 62
- IP-based nation
 - defined 371–3
 - of Junichiro Koizumi (Japanese Prime Minister) 374–80, 386–7
- IPRs (intellectual property rights) 8, 28, 48
 - economics perspective 64, 70, 71, 72
 - and India 207–8
 - protection strength and international trade flows 70–1
 - and Russia 232
 - technology diffusion, effects on 71–2
 - technology transfer debate 100, 102, 112, 116
- Ireland, Microsoft transfer of IP assets to subsidiaries in 91
- ITPGRFA (International Treaty on Plant and Genetic Resources for Food and Agriculture), FAO 313
- Jacobs, Michael 58
- Jaffe, Adam B. 37
- Janewa OseiTutu, J. 47
- Japan 11, 74
 - Act for Establishment of the Intellectual Property High Court, 2004 376
 - Code of Civil Procedure 376
 - Copyright Act, 1985 381
 - Court of Appeals for the Federal Circuit (CAFC) 376
 - decline in patenting since 2001 40
 - Doctrine of Equivalents 382, 383
 - history of legal system for IP 380–6

- Intellectual Property Basic Act, enactment (2002) 374
- Intellectual Property High Court 377–8
- Intellectual Property Strategic Programs 374–5
- Intellectual Property Strategy Headquarters 374, 375
- IP High Court, establishment 375–9
- IP-based nation of Junichiro Koizumi (Prime Minister) 374–80, 386–7
evaluation 379–80
'Lost Decade' 372
measures taken in 1990s for reinforcement of IP protection 381–6
- Patent Act amendments 381, 384, 385
- Patent Office 85, 316, 371
patent scope 70
state of IP Laws prior to 1990 380–1
- Structural Impediments Initiative talks 382
- TRIPS Agreement 387
ultimate objective of IP laws 373
- Unfair Competition Prevention Act 382, 386
and United States 70, 371–3
- 'Jasmine Revolution,' Tunisia (2010) 329
- Jazz Photo v. ITC* (2001) 393
- Jefferson, H.G. 164
- Jilkins, William J. 92
- Joint United Nations Programme on HIV/AIDS (UNAIDS) 239, 257, 269–70
- joint ventures, and firm-level collaborations 107–8
- Jordan 342
- JP Morgan 93
- Junichiro, Koizumi (Japanese Prime Minister) 374–80
- 'junk patents,' China 58, 166
- Kahn, Tamar 256
- Kapczynski, Amy 54, 339
- Kaplan, D. 295
- Kaplan, Warren 272
- Karachalios, Konstantinos 78, 119, 121, 129
- Kawada, A. 378, 379
- Kher, Rajeev 19
- Khor, Martin 54
- Kim, Daria 22
- Klopper, H. 288
- Knake, Robert K. 17, 392
- knowledge
diffusion of and rewarding of innovators 70
economic studies 65–74
as key strategic asset 100
traditional *see* traditional knowledge
upstream stages in chain 126
- knowledge-based products 62, 70
- Krikorian, G. 334, 341, 345
- Krishna, V.K. 194
- Kuanpoth, J. 309, 311, 315, 321
- Kudlinski, Andre 9, 24
- Kumar, Swarup 243, 244
- Kuomintang Government, Chongqing (China) 159
- Lai, E.L. 72
- Laing, Richard 272
- Lancet, The* 257
- Lanjouw, J.O. 108
- Latif, Abdel 341, 345
- Latin American countries, import substitution policy 12
- Lau, D. 170
- law, and property rights 78–9
- LCID (International Development Cooperation Law), Mexico 114
- LDCs (least developed countries) 107, 108, 109, 112, 331
- Lee, C.Y. 156
- Lessa, M. 141, 146
- Levine, D. 61, 84, 98
- Lewis, A. 103
- Lewis, Theresa Beeby 234
- Liang, Zheng 58
- liberty 78–9
- licensing, compulsory 12
Arab world 335
China 18, 162–3, 170–2
India 196
Russia 242–6
Thailand 26, 55

- under TRIPS Agreement 12–13, 54, 242–4
- Lim, Stephen S. 262
- Lin, L. 158
- Liu, Xiaonhai 241, 386
- Logendra, Ramya 262
- lopinavir/ritonavir (drug) 319
- Lund University 90
- Lybecker, Kristina M. 277

- Ma, J. 172
- Ma, K. 155
- Macrory, Patrick F.J. 231
- Magubane, Khulekani 256
- Mak, T. 170
- Makkai, T. 88, 90
- Malavota, L.M. 135
- market failure 63
- Martin, S. 62
- Maskus, Keith E. 9, 70, 71, 72, 74, 127, 294
- Matthijs, G. 364
- Matutes, C. 66, 67–8
- Maurer, William C. 229
- McDaniel, C. 74
- McGlade, J. 80
- McGregor, James 58
- McMillan, M. 102
- McMillian, A.M. 232
- Measures for Compulsory Licensing of Patent Implementation (2012) 171
- Measures for Implementing Compulsory Licensing of Patents Relating to Public Health Issues (2005 Measures) 171
- Melendez, Ricardo 8
- Memorandum of Understanding between the Government of the People's Republic of China and the Government of the United States of America on the Protection of Intellectual Property (MOU), 1992 162
- mercantilist theory 10
- Merck, Sharp & Dohme (MSD) 278, 279
- Merges, R. 67, 68–9
- Mexico, International Development Cooperation Law (LCID) 114
- Microsoft, transfer of IP assets to subsidiaries 91
- Milgram, S. 96
- Millennium Development Goals (MDGs) 120
- Ministry of Commerce of the People's Republic of China (MOFCOM) 170
- MLP (National Outline for Medium and Long Term Science and Technology Development Planning (2006–20), China 155
- Moir, H.V.J. 63, 84
- Molnlycke AB and Another v Proctor & Gamble Limited and Others* 1994 RPC 49 (CA) 115, 288
- monetary policy 83
- money supply 83
- monopolies, potential 62, 63
- Moore, Meredith 258
- Morales, A. 119
- Morocco
 - national exhaustion regime 334
 - patent validation agreement with EU 26
- Morrison, Natalie 258
- multinational corporations (MNCs) 202
- multinational enterprises (MNEs) 83, 92, 120
- Myrdal, G. 103

- Nader, Ralph 84
- NAFTA countries 402
- Nair, P.S. 311
- Nakayama, N. 380
- National Health Insurance (NHI), South Africa 267
- National Innovation Council, India 213, 221
- National Intellectual Property Strategy (NIPS), China 57, 164, 168
- National Patent Development Strategy (2011–20), China 168
- Nelson, R. 67, 68–9
- Netherlands 55
- network governance, and patent offices 91, 93, 95, 96
- nevirapine (NVP), drug 259
- New Delhi Agenda for Cooperation

- and Plan of Action (IBSA initiative) 114
- New International Economic Order 3
- Newfarmer, R. 367
- newly industrializing countries 102
- Ng, L. 170
- NGOs (non-governmental organizations) 139, 282–3
- NNRTI (non-nucleoside reverse transcriptase inhibitor) 259, 279
- Non-Aligned Movement (NAM) 218
- Nonet, P. 86
- non-excludability 62
- non-rivalry 62
- Nordhaus, W. 65
- Novartis 89–90, 195

- Ocampo, J.A. 101, 105
- Ochekpe, Nelson 263
- Odagiri, H. 380
- OECD (Organisation of Economic Co-operation and Development) 5, 105
 - world patent order, geo-politics 46, 48–9
- Officescape (British-owned company, Russia) 231
- Okediji, R.L. 329
- one-size-fits-all policies 47
- Open Source Drug Discovery (OSDD), India 212, 214
- optimal patent life model 65
- Organisation of Economic Co-operation and Development (OECD) *see* OECD (Organisation of Economic Co-operation and Development)
- OSDD (Open Source Drug Discovery), India 212, 214
- Osipova, Yulia 226
- Ostergard, Robert L. 276
- Outline of the National Intellectual Property Strategy, China 164, 168, 169
- ownership of patents, and cross-national investors 124–6

- Pacón, A.M. 145
- PAIPO (Pan-African Intellectual Property Organization) 266
- Pakes, A.S. 66
- Palley, Thomas 391
- Pan-African Intellectual Property Organization (PAIPO) 266
- Paris Convention for the Protection of Industrial Property (1883) 3, 6–7, 136
 - Article 5A(2) 12
 - and Brazil 13
 - and China 160
 - and South Africa 287
- Park, W.G. 73
- partnership principle of regulation 96
- Patent and Trademark Office, US 85
- Patent Appellate Body, India 211
- Patent Cooperation Treaty (PCT) *see* PCT (Patent Cooperation Treaty)
- patent family 121
- 'patent hijacking,' China 166
- Patent Law Treaty (PLT) 7
- patent mapping 79
- patent offices 78–99
 - Brazil 142–5
 - and complexity 79–80
 - in emerging markets 85–6
 - India 203–4, 205–7
 - information gathering 89–90, 94
 - and network governance 91, 93, 95, 96
 - as regulatory agencies 81–2
 - as responsible regulators 88–97
 - role 82, 83
 - selection bias 89
 - and tax offices 89, 91–3
 - Thailand 316–17
 - third parties, state of flux 78
 - and uncertainty 78–9, 80
- Patent Prosecution Highway (PPH) 207
- patent protection
 - Arab Middle East region 330–3
 - China 167–8
 - and cross-country economic growth 72–3
 - index of patent protection strength 73
 - positive and negative aspects to 74
 - in Russia
 - as part of negotiations 235–8

- prior to WTO accession 226–35
 - Russian Empire 226–7
 - see also* patent systems; patents
- Patent Re-examination Board (PRB) 169
- patent social contract 80–4
- patent systems
 - in China 155–79
 - debate on 63–4
 - economics perspective 61–77
 - economic theories behind patent system 62–3
 - gap between economic research and patent system 64
 - in India 191–6
 - international 3, 6–11, 37–45
 - patent life 65, 157
 - real world costs 97
 - in South Africa 275–83
 - competition law, using to achieve prior reductions of off-patent drugs 280–1
 - focusing on aspects pertinent to pharmaceutical sector 275–7
 - Patents Act vs Competition Act 277–9
 - revision of South African IP policy and legislation 281–3
 - see also* patents
- patentability requirements 74
- patentability standards, China 166
- patents
 - abuses of 91, 170–5
 - in Brazil *see under* Brazil
 - breadth (scope) 66, 68, 69, 70
 - defined 62
 - as ends in themselves 10–11
 - fees, annual 65–6
 - first and subsequent filings, distinguished 40
 - incentives 67, 70
 - index of patent protection strength 73
 - narrow protection 67
 - optimal patent life model 65
 - origin of term 128
 - procedures 74
 - versus PVPs 146–7
 - re-examination of, and changing local interests (Brazil) 148–9
 - surge in 38–42
 - as value asset 10
 - see also* patent protection; patent systems
- Patrick, Hugh 49
- PATSTAT statistics database 124
- Pattloch, T. 161
- Paunov, Caroline 199
- Pavitt, K. 105
- Pavlovskiy, A. 227
- payment services, global 28
- Payosova, Tetyana 22, 23
- PCT (Patent Cooperation Treaty) 3, 7, 57
 - and ASEAN 310
 - and China 163
 - and India 190
 - National Phase applications 204
 - and Russia 229
 - and South Africa 287
- Peer to Patent pilot program (2007), USPTO 96
- Pendleton, M.D. 158, 159, 160
- penicillin 258
- Penrose, Edith Tilton 9, 31
- Penubarti, M. 70
- Perlroth, Nicole 392
- persuasion, and punishment 87
- Petersen, Douglas 234
- Pharmaceutical Business Plan 2007–13 (SADC), South Africa 265
- Pharmaceutical Manufacturers Association (PMA), South Africa 275, 276
- Pharmaceutical Manufacturing Plan for Africa (PMPA), African Union 265
- Pharmaceutical Research and Manufacturers Association (PhRMA) 55, 276
- pharmaceutical sector
 - Africa 262–3
 - plans to increase production 264–6
 - Brazil 5
 - evergreening practice 47, 54
 - patent social contract 81
 - Russia
 - essential drug reimbursement subprogram (ONLS) 249

- impact of WTO accession on pharmaceutical sector 241–2
- local production of pharmaceuticals and promotion of R&D 246–51
- Pharma 2020 program 23
- and public health 238–40
- very severe diseases (VZN), drugs for 249
- South Africa
 - economy 270–1
 - off-patent drugs, using competition law to achieve price reductions 280–1
 - patent system aspects pertinent to pharmaceutical sector 275–7
 - size and structure of pharmaceutical market 268–70
 - sustainable pharmaceutical industry issues 272–4
 - taxation issues 93
- Thailand 26, 319–20
- Pharmstandart (Russian company) 240
- Pharmsyntes (Russian company) 240
- Philippines 54
- PIC (prior informed consent) 215
- Pilenko, A. 227
- Piot, Peter 257
- pirated copyright goods 338–9
- plant variety protection *see* PVP (plant variety protection)
- Plessis, L. du 298
- Plummer, Michael G. 231
- plurilateral forums 402–4
- PMPA (Pharmaceutical Manufacturing Plan for Africa), African Union 265
- Png, I.P.L. 295
- Portnova, Marina 228, 231, 236
- Pouris, A. and A. 294
- PPH (Patent Prosecution Highway) 207
- PPP (purchasing power parity) 4
- Prebisch, R. 103
- pre-litigation evidence preservation, codification (China) 167
- Primo Braga, C.A. 70
- prior art defence, China 169
- prior informed consent (PIC) 215
- PRIS (Patenting and Realization of Inventions) company, Russia 228
- production networks, and South-South value chains 106–7
- property rights, and law 78–9
- Prud'homme, D. 156, 158
- public health, Russia 238–40
- Puerto Rico, Microsoft transfer of IP assets to subsidiaries in 91
- punishment, and persuasion 87
- purchasing power parity (PPP) 4
- Putin, Vladimir V. 32–3
- PVP (plant variety protection) 14, 140, 141
 - versus patent 146–7
- pyramidal regulation 87–8, 93, 95, 99
- Qatar, Law on Intellectual Rights Border Measures (2011) 338
- Qiao, D. 162, 163, 198
- Quality Chemicals Industries Ltd (QCIL), Uganda 108, 264–5
- Questions Concerning the Application of Law to Pre-litigation Injunctions to Cease Patent Infringement Activities Several Provisions, Supreme People's Court, China 167
- Quoita, M.K. 340
- R&D investment 56
 - Arab Middle East region 343, 347
 - Brazil 147, 149
 - China 16–17, 156, 168
 - climate change 121, 124, 126
 - economics perspective, patent system 62, 66, 68, 71, 73
 - emerging markets and world patent order 14, 15, 17, 22, 23, 32
 - India 19, 191, 197, 198, 218
 - intellectual property activity worldwide 40, 41, 42
 - Russia 246–51
 - technology transfer debate 107, 112
 - United States 396, 404
- Ramos, Guerreiro 136, 138
- Rapp, R.T. 72
- RCEP (Regional Comprehensive Economic Partnership) 220
- Regibeau, P. 66, 67–8

- Regional Comprehensive Economic Partnership (RCEP) 220
 regulation, responsive *see* responsive regulation
 Regulations to Promote Industrial Property (1898), China 159
 Reichman, Jerome H. 14, 26, 47, 52, 53, 127
 Reis, R. 300
 responsive regulation 83, 84, 86–8
 contextual understanding 86–7
 and duties of regulator 82–3
 ideal of responsiveness 86, 94–5
 partnership principle 96
 patent offices as regulatory agencies 81–2
 responsible 88–97
 pyramidal regulation 87–8, 93, 95, 99
 standards-based 94
 theory 88
 reverse engineering 197
 Ricardo, David 396
 rilpivirine (RIL), drug 259
 Robinson, D. 311
 Rockett, K. 66, 67–8
 Rodrik, D. 102
 Rodrik, Dani 48
 Roffe, Pedro 8, 32, 86, 102
 Rospatent (Russian patent authority) 22, 235
 Rozek, R.P. 72
 RPX (company) 80
 Rushing, F. 73
 Russia 225–51
 access agreement with United States 232
 Arbitration Court for Intellectual Property Rights 22, 235, 236
 Civil Code of Russian Federation 233, 244, 245
 Customs Union with Belarus and Kazakhstan 234, 237, 238, 241, 250
 Empire, patent protection in 226–7
 history and current situation 21–3
 and international patent regime 3–4
 licensing, compulsory 244–6
 modern period 231–5
 Patent Law of Russian Federation (1992) 242
 Patent Office 22
 patent protection before WTO accession 226–35
 pharmaceutical sector 238–40
 essential drug reimbursement subprogram (ONLS) 249
 impact of WTO accession on 241–2
 local production of pharmaceuticals and promotion of R&D 246–51
 Pharma 2020 program 23
 very severe diseases (VZN), drugs for 249
 public health and pharmaceutical sector in 238–40
 Side Letter on implementation of legislation on IP protection and enforcement 232, 233, 234
 Soviet period, dual protection system 227–30
 Civil Code of USSR (1964) 229, 230
 Decree of the Central Committee of the USSR No. 3, 1931 228
 Statute of Privileges for Inventions and Improvements, 1896 226
 TRIPS Agreement 241, 242–4, 251
 WTO accession 225
 elimination of discrimination between patent fees 22
 impact of negotiations on IP protection 231–5
 patent protection prior to 226–35
 patent protection as part of negotiations 235–8
 pharmaceutical sector, impact on 241–2
- SADC (Southern African Development Community) 261, 265
 Saggi, K. 71
 Sakakibara, M. 70
 Salah, H. 341
 Salama, Bruno 248
 Samsung, conflict with Apple Computer 28–9
 Sanger, David E. 392
 Schankerman, M. 66

- Schenpf, R. 147
 Scherer, F.M. 65, 196, 358
 Schmidt, Michael S. 392
 Schneider Electronics 58
 Schumacher, Ernst Friedrich 30
 Schürmann, Marianne 31
 science, government funding 82
 scientific journal publications 110
 Scotchmer, S. 66, 67
 Scott, J.T. 62
 SEAA (Ethiopian company) 108
 Seeds of Discovery (CIMMYT) 97
 SEGOB (Secretaría de Gobernación) 114
 SEIs (strategic emerging industries) 168
 Selivanova, Julia 231
 Sell, Susan K. 6, 7–8, 52
 Selznick, P. 86
 Senate Permanent Subcommittee on Investigation, United States 91
 Seuba, Xavier 8
 Shadlen, K.C. 140, 149, 334
 Shafaeddin, M. 103
 Shanker, Thom 392
 Shapiro, C. 358, 365
 Sharma, Amol 21
 Shearing, C. 88
 Shen, Yuanlin 58
 Sherwood, Michelle 58
 Shi, W. 159
 Shijian, Z. 71
 Shilovskij, Leonid 246
 Shokhina, Yekaterina 235
 Sidibé, Michel 257
 Silberglitt, R. 127
Silent Spring (Carson) 84
 Silma (Russian company) 240
 Silva, J.G.S. 142
 Singapore, Microsoft transfer of IP assets to subsidiaries in 91
 Siwek, S.E. 101
 small and medium-sized enterprises (SMEs), changing global interest patterns 30–1
 smartphones, patent litigation (Apple and Samsung) 29
 Smith, Adam 396
 social contract, patent 80–4
 social value, patent social contract 80
 society rewards 212
 Soete, L. 105
 solar photovoltaics (PV) 121, 122, 123
 Solomon, S. 119
 South Africa 255–85
 BRICS, joining of (2011) 23
 Competition Commission 24, 279
 Department of Trade and Industry 24
 healthcare 267–8
 history and current situation 23–5
 HIV/AIDS pandemic 24, 53–4, 255–60, 279
 Medicines Act 23–4, 47
 National Health Insurance 267
 patent law *see* South African patent law
 patent system 275–83
 competition law, using to achieve prior reductions of off-patent drugs 280–1
 focusing on aspects pertinent to pharmaceutical sector 275–7
 Patents Act vs Competition Act 277–9
 revision of South African IP policy and legislation 251–3
 pharmaceutical sector
 off-patent drugs, using competition law to achieve price reductions 280–1
 patent system aspects pertinent to 275–7
 size and structure of pharmaceutical market 268–70
 South African economy 270–1
 sustainable pharmaceutical industry issues 272–4
 TRIPS Agreement 287
 voluntary licensing 24
 South African patent law
 Act 17 of 1860 286
 background 286–8
 Competition Act 89 of 1998 280, 298–9
 developed countries, influence on policies and practices 288–9
 draft IP policy 295–7, 299

- Draft Policy on Intellectual Property of South Africa 282
- government policies
- whether component of national development strategy 295–8
 - draft new IP policy 295–7
 - extent to which designed to address social welfare concerns 298–9
 - industrial policy developments 297–8
 - jurisprudence 290–2
 - traditional knowledge 289–90
- patent policies, extent to which effective in curing defects found in mature systems
- general 292
 - implications for access, innovation and investment 292–5
- Patents, Designs, Trade Marks and Copyright Act 9 of 1916 286–7
- Patents Act 37 of 1952 287
- Patents Act (Act 57 of 1978) 24, 281, 288
- see also* South Africa
- South Korea 29, 60, 400
- Southern African Development Community (SADC) 261, 265
- South-South nations
- dynamics of ongoing interactions 108–11
 - evolution of trade 104
 - intra-South trade 103
 - technological exchange 105–8
 - trade and investment, rise in 103–5
 - value chains and production networks 106–7
- Spiegel, M. 105
- SPLT (Substantive Patent Law Treaty) 7
- world patent order, geo-politics 52
- State Intellectual Property Office (SIPO), China 57, 156, 168, 173, 176
- state power, distribution 49
- statistics, IP 37–8, 82
- climate change 121–6
- Stauffer Chemical Co & Stauffer Chemical (SA) (Pty) Ltd & FBC Agrochemicals (Pty) Ltd v Safsan Marketing & Distribution Co (Pty) Ltd & Chemtrade (Pty) Ltd v Kempton Produce Supply (Pty) Ltd* 1983 BP 140 149D–150D 289
- stavudine (ARV drug) 277
- STI (science, technology and innovation) 113
- Stiglitz, Joseph E. 30
- Strandburg, K. 365
- strategic emerging industries (SEIs) 168
- sub-Saharan Africa 255, 261, 262
- Substantive Patent Law Treaty (SPLT) *see* SPLT (Substantive Patent Law Treaty)
- Sun, J. 173
- Sun, Y. 160
- Sunami, A. 380
- Suttmeier, Richard 56, 57, 59
- Tamura, Yoshiyuki 11, 386
- Tata Chemicals, India 19
- tax offices 89, 91–3
- Taylor, M.S. 108
- technological information, free revealing 89–90
- technology transfer debate
- China, removal of approval requirements for technology transfer to foreigners 170
 - and climate change 120–1, 128
 - developing countries 101, 107, 108
 - facilitation of greater technological exchange, emerging economies 111–16
 - and FDI 71, 104, 105, 109
 - firm-level collaborations and joint ventures 107–8
 - governmental initiatives, examples 114–16
 - intergovernmental initiatives, new (within emerging economies) 113
 - international 100–3
 - IPRs 100, 102, 112, 116
 - new growth prospects for emerging economies 103–8
 - new impetus for discourse 108–16
 - North-South-South dynamic, new 111, 116

- and role of emerging economies 100–18
- South-South nations
 - dynamics of ongoing interactions 108–11
 - evolution of trade 104
 - intra-South trade 103
 - technological exchange, cases of 105–8
 - trade and investment, rise in 103–5
 - value chains and production networks 106–7
- tenofovir (TDF), drug 258
- Thailand 25–6
 - and ASEAN 305–25
 - backlog of applications
 - and incomplete patent documentation 317–19
 - compulsory licensing in 26, 55
 - economy 314–15
 - IP law 315
 - IP&IT Court (Intellectual Property and International Trade Court) 320, 321, 322
 - Patent Office 316–17
 - patents and access to medicines 319–20
 - pharmaceutical sector 26, 319–20
 - research policy and technology diffusion 315–16
 - specialized IP Court 320–1
 - technical assistance and IP 321–3
 - Traditional Medicine Act B.E. 2542, 1999 315
 - TRIPS Agreement 315
- Thompson, M. 73
- Thornton, Songok Han 6
- Thornton, William H. 6
- total factor productivity (TFP) 73
- TPPA (Trans-Pacific Partnership Agreement) 8, 189
 - and United States 403–4
 - world patent order, geo-politics 27, 53, 60
- trademarks 42, 43
- traditional knowledge
 - ASEAN-Australia-New Zealand FTA (AANZFTA) 312–13
 - resource classification system (India) 20
 - South African patent law 289–90
 - “tragedy of commons” (Hardin) 69
 - Trajtenberg, Manuel 37
 - transfer pricing strategies 91, 93, 98
 - Trans-Pacific Partnership Agreement (TPP) *see* TPP (Trans-Pacific Partnership Agreement)
 - Travers, J. 96
 - Treatment Action Campaign (TAC), South Africa 277, 290, 291, 292
 - Trilateral Offices (USPTO, EPO and JPO) 85, 316
 - TRIMS (Agreement on Trade-Related Investment Measures) 21
 - TRIPS Agreement (Agreement on Trade-Related Aspects of Intellectual Property Rights) 1994 46, 49, 107
 - and Arab world 330, 337, 338–9, 340
 - and ASEAN 309, 311
 - and Brazil 14, 136, 137–9
 - and China 17, 163, 174
 - compulsory licensing under 12–13, 54, 242–4
 - Council meeting (2010) 55
 - Doha Declaration on TRIPS and Public Health 24, 51, 52, 54, 64, 172, 243, 298
 - economics perspective 64
 - flexibilities 47, 54, 170, 210, 212, 243, 251
 - South Africa 299, 300
 - and India 190, 209, 212
 - and Japan 387
 - and least developed countries 108
 - “minimum” standards for IP protection 64
 - negotiation of (1986–93) 3, 7, 14, 33
 - “paragraph 6” provisions 51
 - patent offices 85
 - and Russia 241, 242–4, 251
 - and South Africa 287
 - and Thailand 315
 - TRIPS-plus standards 47, 49, 50, 52, 53, 137
 - Arab world 336–9
 - and United States 394, 400

- see also* WTO (World Trade Organization)
- 'Trolliburger' (sweet toy) 362
- tuberculosis, in AIDS patients 269–70
- type 2 diabetes, and genetic differences 90
- UK Commission on IPR 64
- UNAIDS (Joint United Nations Programme on HIV/AIDS) 239, 257, 269–70
- uncertainty 78–9, 80
- UNCTAD (United Nations Conference on Trade and Development) 4, 101, 105, 106, 108
- UNEP (United Nations Environment Programme) 121
- unfair competition 382, 386, 398–9
- UNFCCC (United Nations Framework Convention on Climate Change) 101, 120
- United Nations Conference on Trade and Development (UNCTAD) 4, 101, 105, 106, 108
- United Nations Environment Programme (UNEP) 121
- United Nations Framework Convention on Climate Change (UNFCCC) 101, 120
- United Nations General Assembly Special Session on HIV/AIDS, Declaration of Commitment (UNGASS Declaration) 238–9
- United States Patent and Trademark Office (USPTO) *see* USPTO (United States Patent and Trademark Office)
- United States (US) 391–406
 - America Invents Act (AIA), 2011 397
 - bilateral negotiations/forums 8, 49, 399–401
 - business models 79–80
 - and China 71, 395, 399
 - competition, new form of 394–6
 - digital and other integration of US IP framework 397–8
 - EU–USA bilateral 401–2
 - and evolving international scene 394–7
 - Federal Trade Commission 25
 - Free Trade Agreement (FTA) provisions 47, 336–7, 343
 - hegemony 49
 - and India 21
 - and international economics 396–7
 - International Trade Commission 234
 - and Japan 70, 371–3
 - legal background 393–4
 - meaningfully addressing competition in innovation from emerging markets 404–6
 - Patent and Trademark Office 85
 - plurilateral forums 402–4
 - R&D investment 396, 404
 - response to global competition 397–404
 - and Russia 232
 - Senate Permanent Subcommittee on Investigation 91
 - trade bully reputation 49
 - TRIPS Agreement 394, 400
 - unfair competition, addressing 398–9
 - US Section 337, Tariff Act 1930 393
 - and world patent order 49
 - Unsafe at Any Speed* (Nader) 84
 - UPOV (Union for the Protection of New Varieties of Plants) 137, 313
 - Uruguay Round of Trade Negotiations (1986–94) 49, 50, 52, 63, 330, 394
 - and Brazil 138, 139
 - and India 187, 188
 - see also* GATT (General Agreement on Trade and Tariffs)
 - USPTO (United States Patent and Trademark Office) 16, 69, 316
 - and India 204, 205, 206
 - Peer to Patent pilot program (2007) 96
 - USTR (US Trade Representative) 162, 184, 234
 - Omnibus Trade and Competitiveness Act, Section 301 Priority Watch List 234, 268
 - utility model and design patents, China 16, 42, 56, 160

- average life cycle of utility models
157
as 'junk patents' 58, 166
- vaccines, patent mapping 79
- value chains and production networks
(South-South) 106–7
- Van Overwalle, Geertrui 29, 94–5, 358,
364, 365, 366
- Van Pottelsberghe de la Potterie, B. 360
- Van Zimmeren, E. 358, 365, 366
- Vawda, Y.A. 293, 298
- 'vent-for-surplus' theory 103
- Vos, R. 101
- Wallerstein, I. 120
- Wambebe, Charles 263
- Wang, Shirley S. 248
- Wang, X. 158
- Wanyanga, Wilberforce 256
- Washington Consensus 12, 49
- WBCSD (World Business Council for
Sustainable Development) 120–1
- Weatherall, Kimberlee 60
- Wechsler, Andrea 17
- WHO (World Health Organization) 51,
101, 255–6
 Good Manufacturing Practices 265
- Williams, Matthias 55
- WIPO (World Intellectual Property
Organization) 16, 78
 and Arab world 332–3
 and ASEAN 310
 and Brazil 137, 138, 139
 Development Agenda (2007) 52
 and India 183
 and Japan 371
 patent mapping 79
 PCT, administration of 57
 and Russia 229, 247
 and South Africa 288
 technology transfer debate 102
 world patent order, geo-politics 47,
 50, 52
- Woolcock, S. 309
- World Bank (WB) 4, 239
- World Business Council for Sustainable
Development (WBCSD) 120–1
- World Health Organization *see* WHO
(World Health Organization)
- World Intellectual Property
Organization (WIPO) *see* WIPO
(World Intellectual Property
Organization)
- world patent order, geo-politics
46–60
 forum-shifting 48, 50–3
 HIV/AIDS pandemic 53–5
 IP protection 48
 World Trade Organization 49
- world trading system, reform 63–4
- worldwide IP activity 3, 6–11, 37–45
 growing use of IP rights other than
 patents 42–4
 patent surge 38–42
 statistics 37–8, 82
- WTO (World Trade Organization)
and Brazil 137
 Chinese accession (2001) 17, 56,
 163
 establishment (Uruguay Round)
 49
- Government Procurement
Agreement (GPA), 1994 15,
274
- and India 55
- Panel 59
- Russian accession 225
 impact of negotiations on IP
 protection 231–5
 patent protection prior to 226–35
 patent protection as part of
 negotiations 235–8
 pharmaceutical sector in Russia,
 impact on 241–2
- and South Africa 287
- technology transfer debate 102
- and world patent order 49, 50, 52,
55
- see also* TRIPS Agreement
(Agreement on Trade-Related
Aspects of Intellectual Property
Rights); Uruguay Round of
Trade Negotiations (1986–94)
- Xue, Lan 58
- Yamane, Hiroko 236, 243, 248
- Yang, W. 166
- Yao, Xiangkui 56, 57, 59

Yen, A. 166

Yu, Peter 49, 57

Yu, Z. 157

Yudoyono, Susilo Bambang
(Indonesian President) 54–5

Zhang, Haiyang 9, 81

Zhang, Xinzhu 58

Zheng, C. 158, 159, 160

Zhuang, Wei 11, 16, 17, 18, 395

ZTE (Chinese firm) 59