Index

64/QAM 114–15

Adda, Jerome 11

ADSL
in analogue switchoff 58
broadcasting costs 70, 73
Italy 93
triple play 68

advertising
Broadcast Flag rules 31
expenditure decrease 81
Italian market 96–7

Albornoz, Luis 50
Amaya, Ryuji 140, 142, 143
Amazon 165–6, 171, 182
Argentina 49–50
Armstrong, M. 102, 227
Asai, S. 280, 282, 283

B-CAS cards 234–5
see also CAS

Bailey, J. P. 171
Bakos, J. Y. 171
Baldwin, C. Y. 273
Baraldi, L. 100
Baumol, W. J. 227

BBC
adoption of digital 107–9
history 105–6
Becker, E. 184
Belgium, digital TV, uptake 2, 5
Besanko, D. 129, 135
Besen, S. 168
Bhargava, H. K. 172
Binmore, K. 184
Bjorkdahl, J. 263
Bohlin, E. 263
Bolaño, César 46
Brazil 45–7

Broadcast Flag 187
see also Copy Once
Broadcast Flag Order 30–31

Brown, Allan 12, 51
Brynjolfsson, E. 165
BS (broadcast satellite) broadcasting,
Japan 123–4, 139
BSkyB see Sky

Carlton, D. W. 128, 135
CAS (conditional access system) 205
see also B-CAS cards; STB
Cave, Martin 6, 9, 10, 42, 116, 118,
134, 282
Caves, R. 180
CGMS (copy generation management system) 164
Chipty, T. 95
Choudhary, V. 172
Christensen, L. R. 258
Clark, K. B. 273
Coase, R. H. 189
communications infrastructure
243–6
compression 67–8
Conner, K. E. 197
content protection 162
see also digital content transaction system
convergence
definitions 2, 55, 146, 233
EU Green Paper 208
Europe 55, 74–6, 203, 207–8
Italy 83, 99
Japan 120, 124, 131–2, 134, 263–4,
279
see also triple-play
convoy system 151–2
Copy Once 234
see also Broadcast Flag
copyright
fair use 189–91
file sharing 191–6
Japan 130–31, 234–5, 236, 276
overview 187–8
see also digital content transaction system
copyrighted goods, characteristics 188
cost-benefit analysis 113–14
costs, digitisation, Japan 152–4
Cowie, C. 175, 181
Crane, Rhonda J. 43
CS (communications satellite) broadcasting, Japan 123–4, 139
CSS (content scramble system) 164
cut-and-paste once 241–2
Davies, Gavyn 107
DBS (Direct Broadcast Satellite)
signal availability 27
signal carriage rules 33
De Fraja, G. 100
decentralisation of mass media principle, Japan 154–6
decoder/demodulators see STB
Del Bono, F. 100
Del Monte, A. 99
Depoorter, B. 197
digital content transaction system 237–43
digital inclusion, digital broadcasting as tool for 43
digital TV
differences from analogue 1–2, 39–40
and Internet 243–50
take up 2–5
Directive 95/47/EC 204–5
Article 4 206–7
DRM (digital rights management)
background 163–6
and intermediaries 171–4
legislation 170
pay TV 175–80
pricing of content 180–83
US 29–31
see also piracy
DTT (digital terrestrial television)
advantages 70, 140, 232–3
analogue transmitter reuse 114–15
competition with other networks 66–70
definitions 55
European market 72–6
and Internet 233–4
Italy, market structure 80–83
as paradigm shift from analogue 143–7
penetration, Europe 60–66
potential impact, Europe 56–8
as strict substitute for analogue 141–3
DTT pay-TV
characteristics 80, 81
UK failure 16, 65, 73
dual must-carry 33
DVB
Brazil 49–50
definitions 52
EU 204
DVB–H (DVB Handheld) 71–2, 110, 117
Economides, N. 227
economics of scale, Japan 254–6, 258–60
economies of scope, Japan 256
economies of vertical integration, Japan 257, 260–63
ECPR (Efficient Component Pricing Rule) 212
Electronic Frontier Foundation 183
empty frequencies 10–11
EU
DTT penetration 60–66
DTT potential impact 56–8
policy overview 54–5
regulation, technical services 204–11
switchover 12–13
see also FRND
Evans, Peter 47
fair use, copyright 189–91
Finland, switchover 63
football see soccer
Foster, R. 127
Fox, Elizabeth 52
free-to-air channels, Europe 58–60
Freesat 109
Freeview 108–9
FRND (fair, reasonable, non-discriminatory) provisions
concern over 224–6
definitions 207
history 211–15
need for 218–24
problems with 215–18
Index

Fujimoto, T. 273
Funada, Masayuki 156

Galperin, Hernan 2, 6, 43, 52, 79, 118
Geller, Henry 44

Germany
set top box subsidies 65
switchover 63

Gnutella 192
Goodwin, Peter 108
Gordon, W. J. 189, 190

Hart, Jeffrey A. 43
Hausman, J. 165
Hayashi, Koichiro 143, 145, 147, 151, 153, 158, 159
Hayashi, P. M. 261
Hazenett, Thomas W. 8, 42
HDTV (High Definition TV)
content production, US 27–8
DTT capacity 68
imposition on terrestrial 65
as proxy for higher willingness to pay 182

Henning, V. 184
Hirai, Takuya 152
home copying 29–31
Hotelling, H. 125, 128

Ikeda, Nobuo 147, 151, 159
incumbent channels 63
inter-operability 75

Internet
advertising 81
and digital TV 243–50
Japan 233–4

Internet adoption, Latin America 43
Internet Protocol (IP), Japanese
terrestrial broadcasting 122–3, 143–7

ISDB-T 122–3

Italy
DTT market structure 80–83
future 101
pay-TV market 87–91
public broadcasters, role 98–100
set top box subsidies 65
switchover 11, 63
transition strategy 91–3
TV regulation

Japan
broadcast technology 122–3
cable 124
content provision 127–8
content specificity 128–30
copyright 130–31, 234–5, 236, 276
decentralisation of mass media
principle 154–6
digital terrestrial, current status 121
digital terrestrial TV
history 139–40, 231, 253, 272–3
monopolistic status 232
digital TV
schedule 142
takeup 5, 121
digitisation costs 152–4
digitisation impact 280–81
economies of scale 254–6, 258–60
economies of scope 256
economies of vertical integration 257, 260–63
future 134–5
imposition of HDTV 65
Internet 233–4
market structure 124–5, 273–9
media concentration laws 131–2
and must-carry rule 156–7
public service broadcasting 125–7
satellite 123–4
spectrum policy 133–4
switchover 12, 121
vertical integration 263–4

Jenkinson, T. 135
Jensen, Jens J. 2
Johnson, W. R. 191
jurisdiction problems, satellites 11

Kaplan, S. 184
Kaserman, D. L. 260
key network stations 232, 243, 254
Kitahara, Yasusada 145
Krutilla, J. V. 126

history 83–7
reform 96–8
response to vertical integration 93–6
value chain 6–8
iTunes 164, 171, 195
ITV-Digital 108
Laffont, J. 227
Landes, William M. 197, 251
Latin America
opportunities and challenges 42–5, 50–52
see also Argentina; Brazil; Mexico
Lessig, L. 166, 197
Levy, D. A. 44, 101
liberalisation of spectrum use 11
Liebowitz, S. J. 168, 190, 191
Mankiw, N. G. 227
market power 5–9
may-carry rule 157
Mayo, J. W. 260
media concentration laws, Japan 131–2
Mexico 47–8
MHP (Multimedia Home Platform) 70
Mitomo, H. 254, 263, 264
Motokawa, T. 135
Movielink 174
MPEG-2, multiplexing capabilities 67
MPEG-4, multiplexing capabilities 67–8
MPVD (multichannel video programming distributors) 30–31
multicasting, definitions 28
must-carry rule
DTV not subject to 27
and Japan 156–7
see also dual must-carry
must-carry status 32–3
Muthoo, A. 184
Nakamura, Kiyoshi 159
Napster 192
Negroponte, N. P. 120, 159
Netherlands, digital TV, takeup 2, 5
network tipping 147
Nevo, A. 184
Noam, E. M. 80, 125, 126, 141, 145, 147
Nolan, D. 282
Novos, I. E. 168, 197
NRF (EU New Regulatory Framework) 208–11
Oberholzer, F. 191
On-Digital 108
Oniki, Hajime 251, 252
Ordover, J. A. 190
Osborne, M. 184
Ottaviani, Marco 11
Owen, Bruce M. 42
P2P
Copy Control CDs 196
definitions 187
music CD sales 191
significance for digital copying 192
transaction costs 194
Papadias, L. 98
paradigm shift hypothesis 143–7
Parisi, F. 197
Patterson, L. R. 197
Peacock, A. 127
Perloff, J. M. 128, 135
Perrucci, A. 54
Perry, M. K. 102
Petrin, A. K. 184
Picard, Robert J. 12, 51
piracy 166–71
platform characteristics 2–4
‘Plug and Play’ Order 30
Pohjola, Matti 51
Posner, R. A. 197, 251
Prakash, Aseem 43
Pritchard, D. 283
public broadcasters, role, Italy 98–100
public service broadcasting
Japan 125–7
linkage to payment for spectrum 73
recognition of DRM 169
regulation
EU, technical services 204–11
Japan 124, 154–6
retransmission consent 33
Richeri, A. 54
Rob, R. 167
Rogers, Everett M. 145
Rubinstein, A. 184
Rumelt, R. P. 197
Rump, N. 184
Samuelson, P. 166, 169
satellites 11
see also BS
Sauter, W. 227
Sawhney, M. 184
SCMS (serial copy management system) 164
Scotchmer, Suzanne 9
set top boxes see STB
Shapiro, C. 183
Shigenobu, Yutaka 157
Sidak, J. G. 227
simulcast (parallel DTTV/analogue) 139
Sinclair, John 52
Sky
BSB 106
pay-TV market, Italy 90–91
soccer 106, 178
soccer
DTT takeup 65
pay-TV, Italy 87–91
providing political deadlines 142
Sky 106, 178
spectrum policy
development of 9–11
Japan 133–4
linkage to public service obligations 73
UK 115–17
spectrum release, as incentive 73
Spitzer, Matthew L. 42
sports 121
see also soccer
standards
development 46
regional policy usage 43
STB (set top boxes)
prices 62–3, 108
subsidies 11–12, 34–5, 65
see also B-CAS cards; CAS
Strumpf, K. 191
substitution hypothesis 141–3
Sunstein, Cass R. 42
Sutton, J. 128, 135
Sutton model, vertical product differentiation 127–8
switchover
approaches, US vs UK 44–5
compulsion 63–4
consumer costs 111, 113
incentives 64–6
Italy, strategy 91–3
schedules 11–12, 48, 115
UK 12, 44, 110–15
US
analogue switchoff 31–5, 64
approach 44
current status 26–31
legislation 26
schedule 12
taboo channels 42
Tagawa, Yoshihiro 158
Tanaka, T. 283
televisions, presence vs PCs 55
terrestrial spectrum, capacity 66–70
terrestrial TV, Europe 55–60
Tirole, J. 227
triple-play (TV, internet, telephone) 68, 70, 124
TVWF (Television Without Frontiers) Directive, objectives 203
Ueda, Y. 254, 263, 264
UK
analogue history 105–7
digital history 107–9
digital TV, takeup 2, 5
DTT pay-TV failure 16, 65, 73
spectrum policy 115–17
switchover 12, 44, 110–15
TV spectrum 10–11
UMTS (Universal Mobile Telecommunications System) 70, 72
US
consumer equipment takeup 28–9
content production 27–8
digital TV, takeup 2, 5
DRM (digital rights management) 29–31
imposition of HDTV 65
signal availability 26–7
spectrum distribution 25–6
switchover
analogue switchoff 31–5, 64
approach 44
current status 26–31
legislation 26
schedule 12
value chain 5–8
Varian, H. R. 169, 181, 183, 197, 227
Index

Vickers, J. 128, 134
Vieira, Vinicius 46
Waldfogel, J. 167
Waldman, M. 168, 197
Waterman, D. 198

Weeds, H. 102
Whinston, M. D. 227
White, L. J. 227
Williams, M. 175, 181
Williamson, P. 118
Willig, R. 190