

Index

- arbitrage, *see also* parallel trade, 128, 468n4
 Article 101, 206, 328, 330, 424
 Article 102, 202, 206, 217, 327n, 328, 546
 asymmetric buyers, 36, 58–9, 141–47, 170–82,
 254–56, 286–90, 317, 336
 asymmetric information, 15n, *see also*
 imperfect information, 233–35, 277,
 483–84, 513–19
- bargaining power, *see* buyer power
 barriers to entry (or to expansion), 22, 27n, 74,
 77, 84, 92, 96, 99, 103, 107, 112, 208,
 213–16, 221, 225, 323, 344, 348, 364, 382,
 427, 430, 437, 448n, 451, 457, 460, 549,
 553, 585–86
 Bernheim and Whinston model, 30n, 33, 147,
 155–58, 277n
 bidding markets, 31, 221
 bundling (or tying)
 after-markets (or after-sales), 362n, 364,
 390–99, 419–23, 429, 435–36, 443–46,
 462
 all-or-nothing clauses, 373
 bundled rebates, 351–52, 371n, 389–90, 424,
 429–31, 438–43, 449–50, 459–64
 commitment to aggressive R&D, 383–84
 commitment to aggressive pricing, 375–83,
 389n, 459
 commitment to tie, 352n, 426–27, 452n
 contractual tying (or bundling), 351, 378,
 391, 428, 445, 448, 458
 costly information theory, 397
 distinct (or separate) products, 425n, 435n,
 443–44, 458, 459
 fixed proportions, 351
 full-line forcing, 351, 371, 373, 434
 independent products, 355–56, 366, 369–73,
 376–79, 381–83, 400–402, 426
 irreversible, 374, 378–79, 382, 383, 386, 388,
 403, 407, 412, 418, 427
 leverage theory, 352, 364–67, 378, 386, 433,
 452
 limited commitment theory, 395, 422–23
 metering, 361–62, 399, 433
 mixed bundling, 351–52, 359–61, 369–71,
 373, 395n, 431
 objective justifications, 424, 428, 447
 price discrimination, 358–63, 376, 398–99,
 431, 432
 pure bundling, 350, 371–72, 427, 438
 reputation, 354, 373, 397, 434, 445, 457, 460
 requirement tying, 351, 354, 362, 364, 391,
 399, 429
 safety, 354, 424, 443
 surprise theory, 396, 421–22
 technical tying, 351, 378n, 428, 437
 variable proportions, 351
 Whinston model, 356n, 375–78, 380, 381,
 383, 384, 425, 426, 428
 whole-life costing, 444, 446, 462–64
 buyer power, 34–36, 78, 146, 254–56, 266,
 286–90, 312, 318, 346–49, 460, 467n
- captive buyers, 26–33, 51–54, 78–79, 137–39,
 145, 147–51, 182–86, 194n, 210, 221–27,
 230, 389–90, 459, 555
 Carlton and Waldman's model (dynamic
 leverage), 39–40, 364, 386–88, 389n,
 402–18, 425, 427, 432, 450–53, 486–89,
 526, 538–40

- Chicago School critique, 15–18, 239–43, 247, 277–80, 296n, 309, 364–68, 374, 375, 379, 384, 393, 420–22, 456, 473–75, 490–96, 504, 516, 585
- coalition-proof Nash equilibria, 180, 413
- collective dominance (or joint dominance), 201, 235–36
- commitment problem, 132, 160n, 191, 368n, 467n, 472n, 479–83, 491n, 508–12, 551
- compatibility, 42, 66, 70, 146, 374, 403, 425n, 437, 446n, 443–47, 451, 454, 469, 485, 509, 551, 558n, 574, 581–83
- complementary products, 85, 133, 343, 364, 367–68, 373–75, 379–80, 383, 385–88, 391–99, 402–23, 439, 443, 453–56
- contracting externalities, 29–30, 157–60, 245–62, 293, 341, 349
- contracts that reference rivals, 136, 147–61, 194
- coordination failures (or mis-coordination), 34–36, 55–57, 104, 142–46, 162, 169–81, 193–94, 247–49, 253–55, 267, 285, 288, 313, 314, 317, 318, 356
- costs (notions of)
- avoidable, 88–90, 109, 114, 116, 122, 153, 205, 210n, 210, 227, 430, 461–63, 562
 - common, 21, 37–39, 63–66, 87–88, 108, 122, 593
 - fixed, 17, 64, 86–88, 106, 122, 133, 137–40, 153, 163, 168–297, 315, 331–33, 364, 376, 388, 403, 406–12, 418, 507, 527
 - incremental, 52, 90, 95, 109, 122, 198n, 206, 209n, 442, 593
 - long-run incremental, 87–88, 430, 463, 562, 593
 - short-run incremental, 88–89, 430, 562
 - sunk, 17, 21, 31, 49, 51, 63, 64, 90, 120, 163, 168, 170, 208, 213, 251, 267, 376, 386, 406, 412, 501, 527, 595
 - total, 81–84, 86, 88, 93, 97, 106, 114–16, 206, 430, 562
 - variable, 77, 82, 86, 87n, 88–90, 92–97, 105, 110, 111, 114, 116, 122, 430, 439, 442, 562
- countervailing buyer power, *see* buyer power
- critical (or key) buyers, 27, 145, 147, 196, 215, 240, 318, 336, 429, 431
- discounts, *see* price discrimination
- discriminatory offers, *see also* price discrimination, 46, 52, 175, 202, 249–50, 284–91, 339, 349
- divide-and-conquer strategy, 136, 139–45, 163–70, 173–79, 192–93, 249–51, 317, 338
- dominance, 41, 73–75, 78, 84, 119–20, 154, 193, 231, 316, 322, 376, 382–83, 446, 453, 460, 549, 555, 563, 572, 579n, 586
- downstream competition (intensity of), 36, 60–62, 79–80, 193, 238, 258–62, 266n, 269–70, 290–94, 319, 343, 345, 368
- economies of scope, 37–38, 52, 63–66, 102, 110, 115, 119–23, 192, 353, 412, 427, 452, 457, 489, 588, 602
- effects-based approach, 204–207, 220, 447n
- efficiencies
- in bundling, 353–61, 378n, 386, 393, 433, 437, 445–47, 458
 - in exclusive dealing, 240–43, 264, 266n, 273–78, 320–21, 326, 330–35, 339, 347
 - in predation, 19, 25n, 32, 41, 44, 45n, 49, 108
 - in price discrimination, 130–34, 166–70, 191, 213, 232–35
 - in vertical foreclosure, 475, 495, 547, 559–60, 566, 568n, 578
- efficiency rent, 132, 263–64, 368, 375, 426, 456, 473, 495, 501–506, 529, 536–39, 552
- empirical evidence, 20–23, 142, 270–73, 277–78
- excessive prices, 99, 346n, 468, 469n, 485, 494, 495, 548n, 556, 561, 576, 599
- exclusive dealing
- Aghion and Bolton's model, 161n, 246n, 263–67, 295–97
 - all-or-nothing clauses, 225n, 319–20, 339–40
 - breach of contract, 262–67, 294–97
 - competing for exclusivity, 267–70, 297–302
 - contract staggering, 250–51, 319, 331, 342, 345, 349
 - differences with exclusivity rebates, 223, 269, 312–15
 - investment promotion (or protection), 273–78, 302–12, 320–21
 - minimum share requirements (MSR), 252–54

- exclusive dealing (*cont.*)
 naked exclusion, 246–58, 285–90, 338, 343–49
 relationship-specific investments, 273–77, 320
 upstream competition, 244–45, 280–82, 319
 experimental evidence, 35n, 142, 248–50
 exploitative abuses, *see* excessive prices
- first-mover advantage, 27n, 47, 243, 246, 252, 257, 260, 267, 268, 270, 297, 313, 316–18, 335, 341, 343, 412, 417, 460
 form-based approach (or formalistic), 200, 204–208, 220, 228, 237, 321, 329, 450
 fragmented demand, 36, 146, 193, 223, 246n, 255, 266, 331, 333, 338
- growing markets, 36, 58–60, 79, 86, 105–108, 555, 596
 Guidance Paper on enforcement priorities, 200, 217, 328, 428n, 467, 546
- hold-up problem, 273, 320, 335, 345, 397
- imperfect information, *see also* asymmetric information, 15–26
 imperfect rent extraction, 154–57, 363, 367–75, 401–406, 425, 471, 475–86, 504–507, 509–19, 541, 551, 555
 incumbency advantage, 22, 26, 33, 38–44, 47, 52, 54, 66, 70, 78, 96, 98, 99, 103, 104, 110–12, 120, 141, 147, 162, 188, 192, 210–13, 221, 227, 267, 333, 335, 338–41, 384, 458, 554
 innovation, 147, 209–12, 325, 329n, 354, 376, 383–86, 424, 428, 437, 449, 454–56, 547–48, 567, 574n, 583
 intent, 49n, 81, 93, 97–98, 106, 113–16, 124, 196, 326, 451n, 471n, 528, 568, 596
 interoperability, *see* compatibility
- learning effects (or learning-by-doing), 31, 52, 77, 84, 141, 192, 554
- margin squeeze (or price squeeze), *see also* vertical foreclosure
 aggregation level, 562n, 591, 593
 as a substitute for refusal to supply, 499–500, 554
 as exploitative abuse, 494, 556, 561
 downstream dominance, 555, 560, 563
 regulation, 476–78, 496–507, 549n, 556
 market definition, 204, 323, 331, 331–77
 mixed bundling, *see* bundling
 moral hazard, 20, 277
 most-favoured nation (MFN) clauses, 482n
 multi-homing, 257–58, 357–58
- network effects (or network externalities), 33, 39–41, 66–69, 105–108, 146–47, 161–62, 257, 315, 356, 387–89, 398, 412–18, 425n, 427, 448n, 452, 469n, 489, 548n, 553n, 553, 574n, 582n, 583
 non-contestable share of demand (or non-contestable buyers), *see* captive buyers
- objective justifications, 81, 111n, 206, 320, 335, 424, 428, 447, 559–61, 568, 572n
 opportunistic behaviour, *see* commitment problem
- parallel trade, 128n, *see also* arbitrage, 199, 468n
 patents, 35, 99, 208, 221, 391, 432–33, 437–39, 444, 445n, 469, 484n, 553, 575–76
 penetration pricing, 105, 560, 564, 596
 policy implications, 32–33, 73–91, 191–97, 312–21, 378n, 424–31, 462–64, 546, 548–60, 564, 600
- predation
 above-cost predation, 80, 84
 deep-pocket predation, 16–22, 75–76, 79, 81, 119
 financial theory of predation, *see* deep-pocket predation
 long purse predation, *see* deep-pocket predation
 mature markets, 75, 79
 predation-through-merger, 21n, 25–26, 92, 123–25
 reputation model of predation, 22–24, 76, 103, 112, 117, 119, 121, 123–25
 scale economies theory of predation, 26–73
 signal-jamming theory of predation, 26
 signalling models of predation, 24–25, 77, 92, 123–25
 strategic buyers, 33
 two-sided markets, 41–42, 70–73, 99–100

- uniform prices, 43–45, 49–50, 55–57
- welfare effects, 40, 44
- price discrimination
 - (and) incentives to invest, 130–33, 191
 - (in) input markets, 131–35
- ban (or prohibition), 130–35, 138–39, 146, 191
- discounts or rebates
 - all-unit discounts, 129, 134, 150–54, 183, 196, 200, 204, 206–207, 219, 231, 236
 - discounts conditional on exclusivity, 128n, 128–29, 133, 147–48, 154n, 154–61, 183–205, 210–13, 216–18, 223–28, 234–37, 239, 269, 296–315
 - dynamic rebates, *see also* growth target rebates, 128
 - exclusivity rebates, *see* discounts conditional on exclusivity
 - fidelity rebates, *see* discounts conditional on exclusivity
 - growth target rebates, *see also* dynamic rebates, 128, 198, 231
 - individualised discounts, 129, 141, 144, 173–75, 194, 200–204, 219, 231
 - loyalty discounts, *see* discounts conditional on exclusivity
 - market-share discounts, 128, 134–36, 148–49, 155–57, 160, 182–86, 191, 194, 226, 227, 233, 236
 - multi-product discounts, *see* bundling
 - retroactive rebates, *see* all-unit discounts
 - selective discounts (or selective price cuts), 104, 123, 128, 136–47, 170–82, 201–202, 206, 235–36
 - standardised rebates, 129, 144, 194, 200, 206–207, 236
- effective price, 150–54, 183–86, 221–23
- first-degree, 127, 173
- Innes and Sexton model, 139–40, 163–70, 215
- off-net and on-net users, 161–63
- second-degree, 127, 175–82
- targeting contestable demand, 148–53, 182–86, 194n
- third-degree, 127–30, 173
- recoupment, 14–16, 27–29, 37–43, 73–75, 80, 92–103, 107, 114–17, 121–16, 314, 442, 479, 500, 505, 507, 554, 563
- refusal to supply (or to deal, or to interoperate, or to license), *see* vertical foreclosure
- remedies (or commitments or undertakings), 109, 344–45, 448–50, 472, 558–59, 561, 580n, 580, 583, 596–601
- renegotiation, 62–63, 159, 265–67, 277n, 317, 482
- resale price maintenance (RPM), 160n, 270n, 482n
- Section 2 (of the Sherman Act), 91, 337, 566
- sectors of cases considered
 - apparel, 322
 - chemicals, 96, 117–19, 202, 326, 449, 571
 - electronics and IT, 93, 200, 207–19, 324, 329, 432, 437, 446, 448, 450–56, 568, 574, 576, 581–83, 603–10
 - energy, 91, 123–24, 323, 344–45, 565, 580, 596–603
 - equipment, 94, 200, 203, 219–23, 322, 324, 328, 432, 435, 437, 443, 446
 - food, 92, 93, 199, 202, 328, 330–32, 433, 436, 569, 577
 - health services, 434, 442
 - media, 111–17, 125, 337–38, 572, 584–86
 - other manufacturing, 97, 197, 200, 203, 236–38, 325, 327, 338–40, 434, 440, 444, 448, 456–59, 569
 - other services, 325, 340–43, 346–49, 433, 459–64, 565, 567, 568
 - pharmaceuticals, 99–101, 102, 228–30, 438, 439, 573, 584–86
 - postal services, 108–337
 - telecommunications, 103–108, 332–33, 443, 565, 569, 570, 572, 577, 586–96
 - tobacco, 91, 94, 124
 - transport, 95, 102–103, 119–23, 198, 201, 202, 223–28, 231–36, 433, 564, 571
- sequential offers, 27–33, 35–55, 58–73, 147, 157–60, 179, 182–91, 250, 255, 285–94, 313, 317–19, 345
- simultaneous offers, 34–35, 55–57, 80n, 80, 140–41, 160n, 170–79, 247–50, 282–85, 287–94, 313, 317
- single monopoly profit theory, 473–75, 585
- tests
 - as-efficient competitor (AEC) test, 153n, 205–7, 210–11, 217, 439, 479n

tests (*cont.*)

- margin squeeze test, 494, 554n, 561–63, 570, 577, 589, 593–95
- price-cost test, 73–83, 88, 97n, 105, 121–23, 149–53, 195–96, 198, 217n, 227–30, 430, 438, 442, 463
- recoupment test, 74
- replicability test, 30, 49, 88–89, 107, 227n, 479n, 562
- test of predation, 74
- test of profit sacrifice, 74, 80–91, 194–97, 430, 479n, 562
- two-sided markets, 41–42, 70–73, 99–100, 338, 348, 357, 453
- tying, *see* bundling
- uncertainty, 22–24, 26, 80, 101, 105, 108, 114, 148, 152, 157, 200n, 253, 256n, 264, 296–97, 385, 483, 488, 513–19, 527n, 551
- uniform offers, 55–57, 130, 132, 136–39, 141–42, 146, 165–68, 171–81, 247–49, 253, 284
- vertical foreclosure, *see also* margin squeeze (and) incentives to invest (or to innovate), 472, 486, 546–49, 557, 560–61, 572
 - bottleneck, *see also* essential facility, 465–67
 - constructive refusal to deal, 468, 547, 554
 - degraded access (or degraded interoperability), 478, 583
 - dynamic foreclosure (or dynamic leverage), 487–90, 526–45, 552–54
 - essential facility, *see also* bottleneck, 470–73, 565, 569, 571–73, 597
 - fair reasonable and non-discriminatory (FRAND) terms, 575

- in regulated markets, 476–79, 497–507, 549n, 551, 556–58, 569, 576–80, 586–96, 603
- input indispensability, 478n, 491, 508, 549–50, 554, 560, 561, 572–74, 578
- intellectual property (IP), 468–69, 473n, 546, 564, 567–68, 582
- long-term capacity investment (or booking), 469, 579, 596–600
- Ordovery, Saloner and Salop (OSS) model, 484–86, 519–26
- partial foreclosure, 466, 480, 483, 508, 511, 519, 551
- raising rivals' costs (RRC), 484–86, 519–26
- remedies (or commitments or undertakings), 472, 558–59, 561, 580, 583, 598
- risk aversion, 483, 513–19
- standard-essential patents (SEPs), 571, 575–76
- strategic underinvestment, 580, 598, 600, 602
- upstream oligopoly, 483
- welfare effects
 - bundling (or tying), 355–59, 362–63, 370–75, 383, 406, 412, 417, 441n
 - exclusive dealing, 240, 244n, 254, 266n, 274–77, 307–11
 - predation, 50, 69–70, 72–73
 - price discrimination, 129–35, 138–46, 156, 161, 166–70
 - vertical foreclosure, 473n, 485, 493, 498, 499, 505, 507, 511–13, 517–19, 523, 536–38, 545, 547, 563, 591