Subject Index

Air transportation demand model: simulation, 86–88

Available seat miles (ASM), 92, 93

Barriers to entry. See Trade barriers

- Bertrand behavior: in airline deregulation model, 86; in air transportation demand model, 89–90, 95–96; in auto firm calibration model, 23–25, 34; firms as price setters, 4–5; in steel minimill pricing, 152–53; in trade policy effect model, 44, 47, 62
- Brander-Spencer model: in R&D analysis, 158, 161–62, 166; tournament model of R&D, 172–73; of trade policy under imperfect competition, 2–3

Calibration: of air transportation demand model, 91–94; of European car market model, 70–73, 80; parameters and data in steel market model, 139–42; in policy experiments, 58, 60–61; in trade policy effect model, 45–49; of trade policy effect model, 58–62; of transport aircraft industry model, 110–14. See also Equilibrium concept

Calibration models: alternative to Dixit's, 12, 14–20; market behavior in, 21–25; for optimal trade policy, 11–12; parameter value results, 20–25; with product differentiation, 14; quality effects, 35; use of conjectural variations in, 11–12

Calibration technique: defined, 4–5; refining, 5–6; in trade policy under imperfect competition, 46 Car market model. See European car market model

Cecchini Report, 5

- Competition: in air transportation demand model, 95-99; analysis in auto firm calibration model, 21-28; calibration procedure for different forms, 46-47; comparison of Korean and Taiwanese industries, 200-201; conditions for strategic behavior with, 3; conjectural variations to capture firms' behavior in, 11–12; in European car market model, 68; in international steel industry, 131, 133-34; knowing degree of product differentiation, 46; for labor rents, 158; learning-effects model, 102; modeling intertemporal, 132; in steel minimill sector, 137, 140-41; in trade policy effect model, 43-44, 47, 53, 55, 62; in transport aircraft industry, 104-6; in transport aircraft market, 117. See also Bertrand behavior; Cournot behavior; Firm behavior
- Conjectural variations (CVs): in auto firm calibration model, 24, 30–31; in calibration models, 11–12, 14–19; in calibration of steel industry model, 152; solving for parameter, 46

Consumer preferences: in air transportation demand model, 86–88, 89–90; in markets with product differentiation, 68; in trade policy effect model, 64–66

Contestable-markets theory, 137-38

Cost function: in aircraft industry output, 108-9, 114-15; calibration in transport air-

Cost function (cont.) craft industry model, 113–14; in steel industry model, 135

Cournot behavior: in airline deregulation model, 86; in air transportation demand model, 89–90, 95–96; in auto firm calibration model, 24–25, 34; in European car market model, 68–70, 83; firms as quantity setters, 4–5; in nontournament model, 159; in trade policy effect model, 43, 47, 53, 55, 62

CVs. See Conjectural variations (CVs)

Data sources: for air transportation demand model, 91–93; for European car market model, 70–73; for firm behavior calibration model, 19–20; for migration-immigration of scientists and engineers, 185; for trade policy under imperfect competition, 45–46

Demand elasticities: in firm and market behavior calibration model, 21–25; in firm behavior calibration model, 15–18, 33–34; sensitivity in calibration model, 33; in steel industry, 139–40, 152; in trade policy effect model, 45–47

Demand function: in air transportation demand model, 86–88; calibration of parameters, 93–94; in calibration of transport aircraft industry model, 113–14; sensitivity test in air transportation demand model, 97, 99; in steel industry model, 134–35; in transport aircraft industry, 109, 111–12, 114–15

Dixit-Grossman model (in R&D analysis), 162-65, 167-68

Dixit quantification model, 4, 11–14, 19–20, 23–24, 25, 28–30, 35

- Dixit-Stiglitz consumer choice model, 64–65, 68, 82–83
- Efficiency gap, 136–37

Elasticities. See Demand elasticities; Substitution elasticities

Empiricism, 4

Equilibrium concept: in airline transportation model, 86–90, 94–99; in calibrated auto firm model, 42–44, 58–62; crossequilibrium differences in auto firm model, 47, 49–55, 62; with export tax or subsidy, 55–58; in steel industry model, 134–38

European car market model: calibration of, 70-73; features of, 68-70

Export tax or subsidy: in trade policy effect model, 55-59, 61-62. See also Subsidies

Firm behavior: in air transportation demand model, 89-90; conditions for Cournot behavior, 24-25; conjectural variations to represent, 4-5; effect of voluntary export restraints on, 30; in European car market model, 68-70; in imperfect competition, 4-5; influences in Korea and Taiwan, 201; in steel industry, 134; as response to surveillance, 216-19; strategic, 3; in tournament and nontournament models, 158-59; in trade policy effect model, 43-44; using conjectural variations to capture, 11-19; with voluntary car market export restraints, 73-80; when government-subsidized, 3. See also Bertrand behavior; Conjectural variations (CVs); Cournot behavior

Government intervention: justification in R&D for, 168–69; new trade theory notions of, 2; in shifting firms' strategic positions, 11; to support market entry, 106–8; with surveillance, 218–19; in trade policy effect model, 61

Government revenue, 49-55

Herfindahl index of concentration: in European car market model, 71; in industrial organization policy model, 198–99; in trade policy effect model, 45, 47, 53

Import surveillance: effect of, 211, 228; of imports from outside EC, 213–16; test of, 219–27; of trade within EC, 213–16

Import tariffs: in trade policy effect model, 49–55, 61–62

Industrial organization: Korea and Taiwan, 200–202

Industrial organization policy models, 196-200

Industrial policy: Korea and Taiwan, 200–202; for share of labor rents, 158; simulations of, 117; in transport aircraft industry, 122–24

Industry characteristics: in steel industry, 133-34; in trade policy effect model, 45-46; of transport aircraft industry, 103, 126-27

Labor rents: in auto firm calibration model, 25-31; international competition for, 158; in optimal trade policies, 35

Lancaster consumer choice model, 82–83 Learning effects: in aircraft production technology, 103–4, 108; in transport aircraft industry model, 111, 113; used by Airbus Industrie, 107

Learning elasticity (steel minimill technology), 141

Market entry: barriers to high-end product, 196–200; decision making in transport aircraft industry, 106–7; effect in deregulated air transportation, 86, 89–90, 94–99; effects of Airbus Industrie, 110; to transport aircraft industry, 101–2; welfare effects of Airbus Industrie, 115–22

Market power: from product differentiation, 47; in trade policy effect model, 46–47

Markets: for scientists and engineers, 185–88; segmented and integrated, 55

Migration, international: of scientists and engineers, 185-87

Minimill technology: changing, 133-39; parameters describing, 141

NACE-CLIO trade tables (Eurostat), 45

- New trade models, 5
- New trade theory, 1-3

Nontournament models: basic model, 159–61; Brander-Spencer results, 161–62, 166, 169; with distinction between research and development, 167–69; Dixit-Grossman results, 162–65, 167–68; with immobile scientists and mobile science, 166

PCM. See Price-cost margin (PCM)

Policy experiments: export tax policy, 55–59, 61; methodology, 58, 60–61; tariff policy, 49–55, 61

Preferences. See Consumer preferences

Price-cost margin (PCM), 37-40

Product differentiation: in auto firm behavior calibrated model, 12, 14–20, 23–24, 35; in calibration in European car market, 71–73; country, 55; in European car market model, 68; market power of firm with, 47; in trade policy effect model, 46–47, 65; in transport aircraft industry, 104–5, 110–11

Product quality. See Quality effects: differences in Korean and Taiwanese, 202–7; of Korean and Taiwanese exports, 207; in market entry, 196–200; unit value measures, 202–7

Profit maximization (trade policy effect model), 43-44

Protection. See Trade protection

Quality effects: in calibration models, 35

Quantification: Cournot behavior with restrictions on, 68–69; of imperfect competition models, 4–5. *See also* Calibration

Quantitative restrictions. See Voluntary export restraints (VERs)

Research, future, 7-8

Research and development (R&D): foreignbased, 188-91; spillovers, 168-69, 191-92; tournament and nontournament models in, 158-59, 184

Second-best maximum: in steel industry model simulations, 142-45; in steel industry with VERs, 138-39

Sensitivity analysis: in air transportation demand model, 95–99; in calibration models, 12, 18; in trade policy calibration model, 32–34. See also Demand elasticities; Substitution elasticities

Specification: in calibrated models, 12–14, 23–24; in European car market model, 80. *See also* Product differentiation

Spillovers (in R&D), 168-69, 191-92

Steel industry: competition in international, 131, 133–34; cost and demand functions, 134–35; welfare effects of trade policy, 142–50. See also Minimill technology

Steel industry model: calibration, 139–42; cost and demand functions, 134–35

Strategic behavior. See Firm behavior; Government intervention; Strategic trade policy

Strategic trade policy: changes created by, 68; concept, 1–3; issues in application of, 184; voluntary export restraint as, 73–80

Subsidies: of Airbus Industrie, 101–2, 106–7; determining optimal Airbus, 118–21; effect of retaliatory, 121–22, 124; effect of unilateral imposition, 5; for R&D in nontournament models, 169–71; for R&D with spillovers, 174–75; to signal product quality, 197; in trade policy effect model, 55–59, 61–62. See also Export tax or subsidy

Substitution elasticities: in auto firm calibration model, 33–34, 39, 46; in steel industry, 134–35

Tournament models: basic model, 171–72; spillovers in, 173–75

Trade barriers: calibrated matrices of, 47–49; solving for implicit, 46; surveillance as,

Trade barriers (cont.)

213-14; tax policy as, 82; in trade policy effect model, 47-49

- Trade policy: estimating optimal policy in calibrated model, 12–14; under imperfect competition, 2–3; import surveillance as, 213–16; liberalization, 66; optimal, 11; quantification under imperfect competition, 5; results from calibration model, 25–31. *See also* Export tax or subsidy; Import surveillance; Import tariffs; Strategic trade policy; Subsidies
- Trade protection: consumer preference as, 65–66; cost of VER for steel, 132; export promotion with, 5; surveillance as signal for, 217–19
- Trade theory, 2. See also New trade theory; Traditional trade theory
- Traditional trade theory, 1-2
- Unit values: of Korea, Taiwan, and Japan, 209–10; as proxies for quality in Korea and Taiwan, 202–6

- Voluntary export restraints (VERs): changes in levels in steel industry simulation, 145–46; as EC or single-country strategic trade policy, 73–80; effect of, 30; in European car market model, 69–70; in steel industry model, 132, 134–38
- Welfare effects: in air transportation demand simulations, 95; of alternative trade policies for steel industry, 132–33, 142–54; in auto firm calibration model, 29–32; from calibration models, 13; determinant in trade policy effect model, 46; of government-supported market entry, 115–23; of hypothetical export tax policy, 49–59, 60–62; with unilaterally imposed tariffs, 49–55; of voluntary car market export restraints, 74–80
- Welfare function maximization, 25-28