

Index

- Adelman, Irma, 525, 530
- Akerlof, George, 511, 521
- Allen, R. G. D., 52, 61, 136, 148
- Allocative inefficiency, 284
 - cost function, 304
- Arbitrage, 466
- Asymmetric information, 513
- Authoritarian, 421, 512
- Average cost, 310
 - marginal cost, 312
 - returns to scale, 313
- Average revenue product, 363
 - Shutdown Rule, 372
- Backward bending labor supply, 225
- Bads, 25
 - labor supply, 220
 - Optimal Portfolio Theory, 201
 - safety, 212
- Barrier to entry, 392
- Becker, Gary, 6, 62, 75, 130
- Bentham, Jeremy, 28
- Best response function. *See* Reaction function
- Birmingham method, 292
- Black market, 446
- Blackboard economics, 460, 471, 491
- Blanchard Lathe, 292, 298
- Blogs, economics, 365
- Budget constraint
 - charity, 177
 - Endowment Model, 158
 - equation, 11
 - graph, 12
 - insurance, 188
 - intertemporal choice, 167
 - labor supply, 218
 - Optimal Portfolio Theory, 197
 - pivot versus shift, 13–14
 - safety, 211
- BudgetConstraint.xls, 12
- Canonical graph, 39
 - consumer theory, 91, 99, 287
 - cost curves, 315
 - general equilibrium, 527, 530
 - Giffen good, 127
 - input cost minimization, 284, 287
 - input profit maximization, 362
 - labor supply, 221
 - monopoly, 464
 - perfect competition, 326, 331, 347
 - profit maximization, 558
- Cap and trade, 492
- Capacity, 506
- Capital, 267, 358
- Cardinal scale, 28
- Carte Blanche Principle, 69
- Cartel, 410, 494
 - two-stage game solution, 503
 - versus monopoly, 504
- CartelDWL.xls, 495
- Cement, 494
- Ceteris paribus, 11
 - demand, 127
- Charity.xls, 178
- Chicago School, 75, 493, 564
- Cigarettes, consumption, 77
 - literature, 87
 - state tax rates, 76
- CigaretteTaxes.xls, 79
- Clark Medal, 376
- Coase Theorem, 490
- Coase, Ronald, 460, 471, 488
- Cobb-Douglas, 30
 - charity, 178
 - cost curves, 313
 - demand curve, 114
 - Endowment Model, 161
 - factor shares, 374
 - history, 277
 - insurance, 189
 - intertemporal choice, 170

Cobb-Douglas (*cont.*)
 labor supply, 220
 Optimal Portfolio Theory, 201
 production function, 268, 358
 returns to scale, 314
 safety regulation, 211
 tax/rebate, 149
 Command and control, 488
 Comparative statics, 5, 560
 logic, 92
 supply and demand, 433
 wizard, 97, 128
 wizard to derive demand, 111
 wizard to derive supply, 337
 Computable general equilibrium, 530
 Consistency.xls, 379
 Consumers' surplus, 441
 cartel, 503
 monopoly, 463
 sugar, 478
 Contract curve, 546
 Convexity, 25
 Corner solution, charity, 180
 food stamps, 66
 Shutdown Rule, 332
 CostCurves.xls, 312
 Cournot model
 assumptions, 411
 cartel, 496
 equilibrium, 417
 versus monopoly and cartel, 504
 Cournot, Augustin, 335, 340, 391
 Creative destruction, 469, 562
See also Schumpeter
 CSPS.xls, 440
 Deadweight loss, 443, 561
 cartel, 503
 elasticity, 455
 externality, 487
 food stamps, 69
 import restrictions, 478
 monopoly, 464
 price controls, 447
 taxes, 451
 weaknesses, 448
 Debased coinage
 Debreu, Gerard, 533, 551, 556
 Demand curve, 112
 analytical derivation, 114
 insurance, 192
 inverse demand curve, 112
 Law of, 142
 perfect complements, 121
 points off the curve, 115
 quasilinear utility, 118
 Demand for labor, derived demand, 373
 marginal revenue product, 369

short versus long run, 370
 Shutdown Rule, 372
 DemandCurves.xls, 110
 DemandCurvesPractice.xls, 119
 DerivingCostFunction.xls, 301
 DerivingDemandL.xls, 366
 DerivingSupply.xls, 335
 DiffusionTechChange.xls, 346
 Diminishing Returns, Law of, 270
 returns to scale, 272
 Disastrous results, 60
See also miserable results
 Dishonesty, 520
 Diversification, 192
 Division of labor, 297
 Downloading files, xviii
 Dynamic, 563
 Economic analysis of, 176, 183, 197, 296,
 562
 Edgeworth Box, 527
 EdgeworthBox.xls, 527
 EdgeworthBoxGE.xls, 533
 EdgeworthBoxMonopoly.xls, 552
 EdgeworthBoxParetoOpt.xls, 541
 Education, 483
 Elasticity, 93, 560
 charity, 183
 cross price, 119
 income, Cobb-Douglas, 102
 income, perfect complements, 108
 income, quasilinear, 105
 interest rate, 172
 monopoly deadweight loss, 465
 price, 111
 price consumption curve, 121
 sigma, 204
 wage, 222, 370
 Endogenous variable, 3
 Endowment, initial, 157, 527, 533, 543
 charity, 178
 insurance, 188
 EndowmentIntro.xls, 158
 Engel Curve, 99
 perfect complements, 108
 quasilinear utility, 105
 Engel, Ernst, 99, 527
 EngelCurves.xls, 96
 EngelCurvesPractice.xls, 106
 Engels, Friedrich, 99, 563
 Environmental protection agency (EPA), acid
 rain, 491
 effluent restrictions, 488
 Equilibrium, 536
 versus optimization, 419
See also partial and general equilibrium
 EU emissions trading, 492
 EU Sugar Protocol, 474

- Excel
 ARRAY function, 234
 enable macros, xvii
 opening a workbook, xv
 RAND function, 187
 ROUND function, 107
 security, xiii
 trendline, 369
 troubleshooting, xix–xx
 .xslm file extension, xiii
See also Comparative statics, wizard, Solver
- Exogenous variable, 3
- Expected utility function, 189
- Externality, 482
 dishonesty, 514
- Externality.xls, 485
- Fairness, 548
- Famine, 124
- Fatal accident rates, 207
- First Fundamental Theorem, 547
- First-order condition, 49
- FixedSampleSearch.xls, 231
- Flex-fuel, 474
- Food stamps
 budget constraint, 14
 illegal selling, 73
 Program, 62
- FoodStamp.xls, 64
- Football salaries, 436
- Free entry, 324
- Free trade, steel, 351
- Friedman, Milton, 11, 15, 175, 263, 564
- Future value, 168
- Game of life, 422
- GameTheory.xls, 412
- General equilibrium, 423, 525, 560
 existence, 539
 uniqueness, 539
- Giffen good, 124
 labor supply, 225
 quasilinear utility, 148
 Slutsky Equation, 139
- Giffen, Robert, 125, 527
- GiffenGoods.xls, 128
- Gresham's Law, 514, 522, 527
- Gross demand, 161
- Harberger triangle, 453, 459
 history of, 451
 import restrictions, 472
 monopoly, 464
See also deadweight loss
- Hayek, Friedrich, 422, 518, 564
- Heilbroner, Robert, 422, 424, 564
- Herfindahl Index, 401
- Hicks, John, 136, 144, 148
Homo economicus, 512
- Income Adjuster Equation, 134
 labor supply, 223
 tax/rebate, 152
- Income and substitution effects, 131
 intertemporal choice, 172
 labor supply, 222–225
 normal good, 145
 numerical example, 135
 quasilinear utility, 146
 safety regulation, 214
 sign of income effect, 138
 tax/rebate, 152
- Income Consumption Curve, 99
See also Engel curve
- Income effect, 132
- Increasing returns
 average cost, 314
 perfect competition, 564
- IncSubEffects.xls, 133
- IncSubEffectsPractice.xls, 144
- Indices, 515
- Indifference curve, 20
- Indifference map, 22
- Industrial Organization, 392, 471
- Inferior good, 99
 versus Giffen good, 141
- Inframarginal, 65
 monopoly, 464
- Input cost minimization, 281
 versus Theory of Consumer Behavior, 288
- InputCostMin.xls, 282
- InputProfitMax.xls, 359
- Insatiability, 21
- Insurance.xls, 186
- Internalize externality, 488
- IntertemporalChoice.xls, 167
- Introduction.xls, 3
- Invisible hand, 422, 518, 548
- Isocost, 283
- Isoprofit lines, 362
- Isoquant, 269
 cost minimization, 282
 versus indifference curve, 273
- Knight, Frank, 490, 493, 564
- Kreps, David, 157, 165, 556
- Kuhn, Thomas, 7
- Labor, 267
 deriving labor demand, 367
 deriving labor supply, 222
 profit maximization, 358
- Labor Economics, 226
- LaborSupply.xls, 218

Lagrangean method, 162
 consumer theory, 40
 consumer theory, 52
 deriving cost function, 302
 input cost minimization, 285
 monopoly, 402

Lausanne School, 533, 540

Least cost expansion path, 302

Le Chatelier Principle, 385

Lemons, 513

Lerner Index, 399

Light, price of, 349

Long run, 323
See also Demand for labor, Profits

Lucas critique, 210

Lucas, Robert, 215, 563

Mac computer, xiii, xvii

Marginal cost, 311
 equal price
 as λ^* , 307
 relationship with average cost, 311–312

Marginal product

Marginal rate of substitution (MRS), 23
 computation of, 32–34
 corner solution, 66–67
 diminishing MRS, 26
 equal to price ratio, 42, 44, 55, 161, 180, 190
 labor supply, 222
 Optimal Portfolio Theory, 202
 Pareto optimality, 545
 safety regulation, 212

Marginal revenue, 392
 price elasticity, 395

Marginal revenue product, 360
 demand curve for labor, 366

Marginal social cost, 485

Market failure
 externality, 482
 monopoly, 464
 monopoly in general equilibrium, 554

Market system, 422, 562

Marshall, Alfred
 consumers' surplus, 439, 450
 deadweight loss, 459
 graphing demand and supply, 117
 mathematics, 550
 and Pigou, 490
 switching axes, 112, 117
 total instead of marginal, 391

Marx, Karl, 99, 512, 563, 564

Melioration, 255, 257

Melioration.xls, 252

Methodology of economics, 263

Miserable result, 58
 review, 558
See also disastrous result

Monopoly, 391, 496

canonical graph, 397

constrained optimization, 402

deadweight loss, 464

general equilibrium, 551

measuring monopoly power, 399
 versus cartel, 504
See also natural monopoly

Monopoly.xls, 393

MonopolyDWL.xls, 461

Monopsony, 358

Monotonic transformation, 29
 interpersonal comparison, 542
 MRS, 29
 MRS, 34

Monte Carlo simulation
 fixed sample search, 233
 inability to provide exact answer, 245–246
 sequential search, 244

Monte Carlo simulation add-in, 234

Nash equilibrium, 411
 cement cartel, 496
 Cournot model, 415

Natural monopoly, 314

Net demand, 161, 171, 180, 529

Neutral goods, 25

NFLSalaryData.xls, 436

Normal good, 99
 income and substitution effects, 138, 145,
 172–174
 labor supply, 226

Numeraire, 529, 533, 538

Obsolete versus outmoded, 341

Offer curve, 552

Offsetting behavior, 214
 Lucas critique, 215

Oligopoly, 392, 409

Omniscient, omnipotent social planner (OOSP),
 439, 488
 general equilibrium, 541
 optimization problem, 442

OPEC, 494

OptimalChoice.xls, 43

OptimalChoicePractice.xls, 56

Ordinal scale, 29

OutputProfitMaxPCSR.xls, 325

Palgrave Dictionary, 103

Pareto Optimal, 544, 548, 551–555

Pareto, Vilfredo, 28, 527, 533, 541
 criteria, 543
 elites, 550

Partial derivative, 41

Partial equilibrium, 423, 560
 weaknesses, 525
See also Supply and Demand

Payoff matrix, 410

- Perfect competition, 323
 Perfect complements, 24
 analytical solution, 59
 income elasticity, 107
 utility function, 31
 Perfect substitutes, 24, 31
 Pigou, Arthur, 117, 488, 491, 493, 527
 Pollution permits, 492
 Preferences, 19
 well-behaved, 25
 Preferences.xls, 20
 Present value, 169
 Price consumption curve, 112
 elasticity, 121
 See also demand curve
 Price controls (ceilings and floors), 446
 deadweight loss, 448
 Price discrimination, 466, 555
 Price discrimination, perfect, 469
 Price taker, 324
 Price vector, 533, 536
 Prisoner's dilemma, 410
 Producers' surplus, 440
 cartel, 499
 monopoly, 463
 sugar, 479
 Production function, 268
 ProductionFunction.xls, 268
 Profit maximization, 325
 Profits
 economic versus accounting, 329, 332
 excess, normal, negative, 328
 long run, 432
 Protectionism, sugar, 480
 Public finance, 154, 458, 472
 Pure exchange, 526, 532

 Quasilinear utility, 31
 optimization problem, 52
 Quota, 477
 externality, 488

 Rate of time preference, 170
 Rationing, 14
 Reaction function, 414
 Repeated choice, 251
 Recursive solution, 498
 Reduced form, 49, 54
 Residual demand, 413
 Returns to scale
 constant, 273
 versus Law of Diminishing Returns, 272
 Risk, 199
 RiskReturn.xls, 197
 Robbins, Lionel, 557, 564
 definition of economics, 1, 6
 Robinson, Joan, 323, 333
 RockPaperScissors.xls

 SafetyRegulation.xls, 212
 Salter, W. E. G., 342
 graph, 345
 Samuelson, Paul, 28, 35, 436
 Le Chatelier Principle, 387
 Saving, 166
 optimal, 171
 Schumpeter, Joseph, 175, 281, 288, 564
 monopoly, 469
 plausible capitalism, 562
 Screen, 517
 Search
 fixed sample search, 231, 241
 sequential search, 241
 Second Fundamental Theorem, 548
 Separating equilibrium, 517
 SequentialSearch.xls, 243
 Sharing rule, 495, 498
 Short run, 323
 Short ton, raw value (STRV), 472
 Shortage (excess demand)
 general equilibrium, 535
 supply and demand, 430
 Shutdown Rule, 330
 demand curve for labor, 372
 diffusion of technology, 349
 input profit maximization, 363
 Signal, 515
 SignalingTheory.xls, 515
 Slutsky Equation, 136–141, 147
 Slutsky, Eugen, 131, 136, 144, 148
 decomposition, 148, 205
 Smith, Adam, 76, 87, 297, 422, 518, 563,
 564
 Social cost, 483
 Society's resource allocation problem, 420
 equilibrium, 429
 optimal, 443
 Solver, 4, 45
 algorithm explained, 57
 equilibrium, 430
 Frontline Systems web site, xxii
 install, xxi
 review, 557
 sensitivity report, 45
 See also miserable results and disastrous results
 Spillover effects, 484
 Spontaneous order, 422, 518
 Springfield Armory, 292
 Standard deviation (SD), 199, 233
 StateExciseTaxData.xls, 78
 Static, 562
 Steel, 351
 Stigler, George
 Coase, 493
 economics of search, 240
 Giffen good, 125
 history of demand curve, 110, 116

570

Stigler, George (*cont.*)
 price dispersion, 231, 237
 tastes, 62, 75
 Substitution effect, 132
See also Income and substitution effects
 SugarQuota.xls, 472
 Supply and demand
 comparative statics, 433
 football salaries, 437
 initial solution, 430
 resource allocation mechanism, 434
 sugar, 475
 Supply curve, 335, 339
 analytical derivation, 337
 inverse supply curve, 336
 points off the curve, 338
 Shutdown Rule, 336
 SupplyDemand.xls, 427
 Surplus (excess supply), general equilibrium, 535
 Surplus (excess supply), supply and demand, 430
 Tariff rate quota (TRQ), 474
 Tatonnement, 533, 536
 Tax
 incidence, 451
 Pigovian, 488
 quantity, 451
 quantity versus lump sum, 76
 sales, 451
 Taxes.xls, 452
 TaxRebate.xls, 149

Index

Technical inefficiency, 283
 cost function, 304
 Technical rate of substitution (TRS), 274
 Technological progress, 275
 Theory of the firm
 long run, 381
 short run, 383
 three optimization problems, 261
 Total cost function, 303, 309
 Total cost function, canonical graph, 315
 Total effect, 132
 Total fixed cost, 309
 Total product, 269
 Total revenue product, 358
 Total variable cost, 309
 Transitivity, 20
 Two-stage game, 503
 Uniform distribution, 232
 Unrealistic assumptions, 167, 263, 268, 562
 USGovBudget.xls, 63
 Utility
 cardinal versus ordinal, 28
 interpersonal comparison, 542
 Utility.xls, 30
 Walras, Leon, 532, 533
 Walras' Law, 527, 537
 Warranty, 515
 Weighted average, 346
 Word Drawing Tools, xxi