

Index

A

absolute advantage and specialization, 402
absolute poverty, 340
abstractions, 7
advertising, potential negative effects, 248
AE model. *See* aggregate expenditures (AE) model
“after this, therefore because of this” fallacy, 22
aggregate, 7–18
agricultural price supports
 crop restrictions, 106
 deficiency payments, 106
 Net Income Stabilization Account (NISA), 104
 offers to purchase, 105–106
 quota, 106
 supply management programs, 104–105
 supply restrictions, 106
Air Canada, 217, 256, 325
air pollution, 362
Alcan Aluminum, 145, 255, 331
allocative efficiency, 110
 consumer and producer surplus, 195
 defined, 13, 71, 195
 described, 16–17
 equilibrium quantity, 195
 monopolistic competition, 233
 pure competition, 195
 pure monopoly, 212
anti-combines (antimonopoly) legislation
 Combines Investigation Act, 256
 Competition Act, 256–257
 competition tribunal, 256
 defined, 256
 enforcement issues, 258
 evolution of, 256–257
 recent cases, 257–258
anti-combines cases, 245, 257–258
anti-combines policy
 anti-combines (antimonopoly) legislation, 256
 collusion, 246
 defined, 255
 historical background, 255–256
 merger types, 256–257
 regulatory agencies, 256
 underlying purpose, 255
anti-trust case (Microsoft), 265–266
antidumping duties, 419
antiques and price elasticity of supply, 99

asymmetric information, 369
automated banking machines (ABMs), 285
average fixed costs (AFC), 155
average prices, 88
average product (AP), 149
average quantity, 88
average revenue, 175
average total cost (ATC), 156, 157
average variable cost (AVC), 155–156, 157
average-cost curves, 155
Ayres, Ian, 375

B

Bank of Montreal, 258
Bank of Nova Scotia, 331
banks. *See* chartered bank mergers
barriers to entry
 defined, 202
 legal barriers to entry, 204
 oligopoly, 236
 pricing, 204–205
 pure monopoly, 202–203, 204
barter, 39–40
Bastiat, Frederic, 397
BCE, 236
beer industry, 250
“beggar my neighbour” policies, 419
Bell Canada, 202, 214, 236, 261
Bell ExpressVu, 236
Bell Telephone, 167
below-equilibrium pricing, 104
benefit reduction rate, 344
benefit surpluses, 106
benefits and costs analysis. *See* marginal analysis
benefits-received principle, 387
Best Buy, 256
Beton Orleans Inc., 245
biases, 21
bilateral monopoly
 defined, 302
 desirability, 302
 graph, 302
 indeterminate outcome, 302
black markets, 75
Blue Jays, 202
Bombardier, 39, 148, 166, 204, 236
bonds, 144
bonuses, 309
Bre-X Minerals Limited, 144
break-even point, 177
brewing industry, 250

budget constraint, 10, 57, 121, 133–134
budget line, 10, 133–134
bureaucracy and inefficiency, 386
Burger King, 236
businesses. *See also* firms
 corporation, 143, 144
 legal forms of, 143
 partnership, 143
 sole proprietorship, 143
buyers
 inadequate information about, 370–372
 number of, 59, 60

C

Canada
 absolute advantage, 402
 domestic automobile industry, 236
 international trade. *See* international trade
 Kyoto Accord, 264
 natural resources, 291
 physical capital per worker, 291
 prime minister's salary, 331
 probable tax incidence, 393–395
 real wages, long-run trend of, 293
 supply and demand, exports and imports, 409–411
 tobacco market, 237
Canada Pension Plan (CPP), 342
Canada Pipe Company, 257
Canada Post, 248
Canada Post Corporation, 216
Canadian Airlines, 256
Canadian Auto Workers (CAW), 299, 300
Canadian Imperial Bank of Commerce, 258
Canadian Labour Congress, 299
Canadian National Railway, 331
Canadian Radio-Television Telecommunications Commission (CRTC), 204
Canadian Tire, 143
Canon, 281
CanWest Global Communications, 236
capital, 12
 allocation of, and interest, 321
 defined, 12
 efficient capital, and economies of scale, 163
 elastic supply of, and economic rent, 316
 financial capital, 12
 investment in human capital, 305
 money capital, 12
 physical capital per worker, 291
 private ownership of, 35

- real capital, 12
- venture capital, 283
- capital accumulation, 44
- capital goods, 12
 - described, 13
 - market system and, 39
 - technology, 38–39
- capital-intensive goods, 401
- capitalism, 35
 - See also* market system
- carbon dioxide emissions, 368
- Carling O'Keefe, 250
- cartel, 260
- cartels, 244, 260
- causation fallacies, 22
- causation, *vs.* correlation, 22
- cause-effect hypotheses, 6–7
- Cement Quebec Inc., 245
- ceteris paribus*
 - described, 7
 - graphs and, 28
 - law of demand, and, 58
 - supply and demand, and, 73–74
- change in demand
 - causes of, 62
 - consumer expectations, 59, 62
 - consumer income, 59, 61
 - defined, 63
 - described, 59
 - economic rent, 316
 - equilibrium, effect on, 71–72
 - land, 316
 - number of buyers, 59, 61
 - price of related goods, 59, 62
 - product demand, 277
 - tastes, 59, 60
- change in quantity demanded, 63
- change in quantity supplied, 67
- change in supply
 - defined, 67
 - equilibrium, effect on, 72
 - factor prices, 66
 - number of sellers, 67
 - price expectations, 67
 - prices of other goods, 67
 - subsidies, 67
 - taxes, 67
 - technological advances, 66–67
- chartered bank mergers, 258
- cheap foreign labour, 419–420
- Chicago Board of Trade, 57
- chief executive officers, 311
- China, reduced reliance on central planning, and, 35
- choices, 3
 - economic freedom, as goal, 4
 - freedom of, 36
- freedom of choice, 36
- marginal analysis. *See* marginal analysis
- need for choice, 13–14
- present, 20
- scarcity, and, 3
- circular flow model
 - described, 50
 - diagram, 51
 - government and, 50–51
- Coase theorem, 361
- Coase, Ronald, 361
- Coca-Cola, 143, 167
- coefficient of cross elasticity of demand (E_{xy}), 99
- coefficient of factor demand (E_{rd}), 280
- coefficient of income elasticity of demand (E_i), 100
- coefficient of price elasticity of demand (E_d)
 - defined, 89
 - elastic demand, 89
 - extreme cases, 89
 - interpretation of, 89
 - minus sign, elimination of, 89
 - percentages, use of, 87–88
 - unit elasticity, 89
- coefficient of price elasticity of supply (E_s), 97
- collusion
 - anti-combines law, 246
 - cartels, 244
 - cheating, 245
 - covert collusion, 245
 - defined, 241
 - demand and cost differences, 245
 - described, 241–242
 - gentlemen's agreements, 245
 - joint profit maximization, 243
 - legal obstacles, 246
 - number of firms, 246
 - obstacles to, 245–246
 - overt collusion, 244
 - potential entry, 246
 - price and output, 243–244
 - recession, 246
 - tacit understandings, 245
- Combines Investigation Act, 256–257
- command system, 35
 - coordination problem, 45–46
 - demise of, 45–46
 - incentive problem, 46
- commissions, 309
- common stock, 143
- communism, 35
- comparative advantage
 - defined, 404
 - international trade, 404
 - specialization, 401–402, 404
- compensating differences, 306–307
- competition, 37
 - abuse of power, limit on, 37
 - defined, 37
 - imperfect competition, 173
 - import competition, 237
 - “invisible hand,” 45
 - market system, and, 37
 - mergers, 256
 - monopolistic competition, 173
 - non-price competition, 173
 - pure competition. *See* pure competition
- Competition Act, 245, 256–257
- Competition Bureau, 256
- competition policy, 255
- competition tribunal, 256
- complementary factors of production, 278–279
- complementary good, 62, 100, 126
- complementary goods, 126
- concentration ratio
 - defined, 237
 - import competition, 237
 - interindustry competition, 237–238
 - localized markets, 237
 - world trade, 237–238
- concession stands and price discrimination, 219
- conglomerate merger, 256, 256–257
- conglomerate mergers, 257
- connections and income inequality, 336
- Consol Energy Inc., 256–258
- constant-cost industry, 189, 191, 192
- consumer choice theory
 - budget constraint, 121
 - cash and non-cash gifts, 128
 - criminal behaviour, and, 129
 - diamond-water paradox, 127
 - DVDs and DVD players, 126
 - preferences, 121
 - prices, 121
 - rational behaviour, 121
 - real-world applications, 126–127
 - time, value of, 127–128
 - utility-maximizing rule, 121–124
- consumer goods, 13
- Consumer Reports*, 248
- consumer sovereignty, 41
- consumer surplus, 106–111, 107, 195–196
 - defined, 107
 - graph, 107
- consumers
 - equilibrium position, 136–137
 - expectations, 59, 62
 - income, and demand, 59, 61
 - offers to purchase, effect of, 105
 - subsidies, 48

- continuing economic profit, 41
 continuing losses, 41
 control of essential resources, 204
 cooperative games, 238
 cooperative strategies, 243–244
 corporate income tax, 389, 394
 corporate securities, 144
 corporations
 advantages of, 143–144
 bonds, 144
 defined, 143
 disadvantages, 144
 double taxation, 144
 limited liability, 144
 principal-agent problem, 144–145
 stocks, 143
 correlation, vs. causation, 22
 cost benefit analysis
 concept of, 357–358
 defined, 357
 illustration of, 359
 MC = MB rule, 359
 public goods, 357–358
 cost curves
 average-cost curves, 155
 average-total-cost curves, 158
 average-variable-cost curves, 158
 long-run cost curve, 160–161
 marginal cost curve, 158
 productivity curves and, 159
 shifts of, 159
 cost minimization and factor prices, 271
 costs
 average cost, 155–156
 comparative, and specialization, 402, 404
 discrimination, of, 345
 economic costs. *See* economic (opportunity) costs
 explicit costs, 146, 323
 factor cost, 280
 firm size and, 160
 fixed costs, 153
 implicit costs, 146, 323
 industrial regulation, 259
 international trade, 402
 long-run production costs, 160–165
 marginal costs, 156–157
 opportunity costs. *See* opportunity costs
 per-unit costs, 155–257
 short-run production costs, 151–159
 spillover costs, 46–47
 sunk costs, 167
 supply curve, and, 64
 total cost, 154
 transition costs, 368
 variable costs, 154
 costs of production, 142
 covert collusion, 245
 craft union model, 299–300
 Crandall, Robert, 261*n*
 creative destruction, 44
 credit, price of, 327
 credit card interest-rate ceilings, 75–76
 Creemore Springs, 250
 criminal behaviour (economic analysis), 129
 crop restriction, 106
 cross elasticity of demand
 applications, 100
 coefficient, 99
 complementary good, 100
 defined, 99
 independent goods, 100
 substitute goods, 100
 crowding model, 346–349
 Cuba, and central planning, 35
D
 DaimlerChrysler, 236
 DaimlerChrysler Canada, 255
 De Beers, 223
 deadweight loss, 110, 221–222
 graph, 111
 of the tax, 392
 decreasing-cost industry, 192–193
 decriminalization of drugs, 96
 deficiency payment, 106
 deficiency payments
 defined, 106
 elasticity of supply and demand, 106
 offers to purchase, comparison with, 106
 resource overallocation, 106
 definitions, as objective thinking pitfall, 21
 Dell Computers, 214
 demand. *See also* supply and demand
 change in demand, 59–62
 change in quantity demanded, 63
 cross elasticity of demand, 99–100
 defined, 57
 derived demand, 271
 determinants of demand, 59
 elastic demand, 89, 90
 excess demand, 70
 factor pricing, 271–276
 income elasticity of demand, 100
 inelastic demand, 89, 91
 labour demand. *See* labour demand
 law of demand, 57–58
 law of diminishing marginal utility, 120
 loanable funds, 320
 market demand, 59
 perfectly elastic demand, 89, 175
 perfectly inelastic demand, 89
 price elasticity. *See* price elasticity of demand
 product demand, 276, 277, 280
 public goods, 356–357
 pure monopoly, 205–208
 demand curve
 defined, 59
 derivation of, 137–138
 deriving, 139
 law of diminishing marginal utility, 120–121
 mathematics of market equilibrium, 82
 monopolistic competition, 230–232
 pure monopoly, 205
 shifts, determinants of, 59–62, 63
 utility maximization, 124–126
 demographic changes and income inequality, 337
 dependent variable, 26, 27–28
 deregulation, 261
 derived demand, 271
 determinants of demand, 59
 determinants of supply, 65
 diamond trade, 223
 diamond-water paradox, 127
 Diebold, 285
 differentiated oligopoly, 235
 dilemma of regulation, 221
 diminishing marginal utility, 58
 See also law of diminishing marginal utility
 direct controls, 363
 direct relationship, 27
 discrimination
 costs of, 345
 crowding model, 346–349
 economic analysis, 345–349
 employment discrimination, 345
 gender discrimination, 346
 human capital discrimination, 345
 income inequality, and, 335
 labour market discrimination, 344–349
 occupational discrimination, 345
 occupational segregation, 346–349
 statistical discrimination, 345
 wage differentials, and, 308
 wage discrimination, 345
 diseconomies of scale
 applications and illustrations, 166
 Bombardier, 166
 defined, 163
 diversification for stability, 417
 dividends, 144
 division of labour, 39
 Dofasco, 236, 255
 dollar votes, 41
 domestic price, 409
 dominant strategy equilibrium, 239
 double taxation, 144
 downward-enhancement model

- product-demand, increasing, 298–299
 - productivity, increasing, 299
 - raising price of other inputs, 299
 - dual rental market, 123
 - dumping, 418–419
 - duopoly, 240–241
 - DVDs and DVD players, 126
- E**
- economic (opportunity) costs. *See also* opportunity costs
 - defined, 145
 - economic profit, 147
 - explicit costs, 146, 323
 - implicit costs, 146, 323
 - normal profit as cost, 146
 - economic (pure) profit. *See also* profit
 - break-even point, 177
 - defined, 147, 323
 - entrepreneur, role of, 323
 - explicit costs, 323
 - functions of, 325
 - implicit costs, 323
 - innovations and, 325
 - insurable risk, 324
 - long run, 147, 148
 - monopoly, 325
 - pure competition, 186–187
 - pure monopolist, 211
 - resource allocation, 325
 - risk and, 324–325
 - short run, 147–148
 - sources of, 324
 - static economy, 324
 - total output, and, 325
 - uninsurable risk, 324–325
 - economic efficiency. *See* efficiency
 - economic growth
 - defined, 18
 - increases in factor supplies, 17–18
 - labour demand, effect on, 301
 - present choices and future possibilities, 20
 - production possibilities curve, 19
 - technological advances, 18–19
 - unemployment effect and, 301
 - economic laws, 6, 7
 - economic methodology
 - cause-effect hypotheses, 6–7
 - hypotheses, 6
 - principles, 6, 7
 - scientific method, 6
 - theoretical economics, 6–7
 - economic perspective
 - defined, 4
 - fast-food lines, on, 6
 - marginal analysis, 5–6
 - pitfalls to objective thinking, 21–22
 - rational behaviour, 4–5
 - scarcity, and choice, 4
 - economic principle, 7
 - economic problem, 9
 - defined, 9
 - efficiency, 13
 - limited income, 9
 - scarce resources, 12–13
 - unlimited wants, 9–10
 - economic rent
 - alternative uses of land, 317
 - capital, elastic supply of, 316
 - defined, 315
 - demand, changes in, 316
 - determination of, 315
 - differences in, 316–317
 - incentive function, 316
 - perfectly inelastic supply, 315–316
 - productivity differences, 316–317
 - economic resources, 12
 - capital, 12
 - categories, 12
 - defined, 12
 - entrepreneurial ability, 12
 - full employment, 13
 - full production, 13
 - labour, 12
 - land, 12
 - overallocation, 106
 - ownership or control of essential resources, 204
 - relative scarcity, 13
 - resource payments, 12–13
 - substitute resources, 277–278
 - economic system
 - command system, 35
 - defined, 35
 - market system, 35
 - economic terminology, 7, 21
 - economic way of thinking, 4
 - economics
 - defined, 3
 - foundation of, 9–11
 - macroeconomics, 7–8
 - microeconomics, 8
 - normative economics, 8
 - positive economics, 8
 - theoretical economics, 7
 - economies of scale
 - applications and illustrations, 166
 - daily newspaper, 166
 - defined, 161
 - efficient capital, 163
 - labour specialization, 161–163
 - learning by doing, 163
 - managerial specialization, 163
 - natural monopoly, 165, 203
 - network effects, 214
 - pure monopoly, 203, 213–214
 - simultaneous consumption, 214
 - successful startup firms, 166
 - economy, the
 - organizational mechanism, 2
 - static economy, 324
 - whole, as a, 3–4
 - education
 - income inequality, 335
 - wage differentials, 305
 - efficiency, 109–111
 - allocative efficiency, 13, 16–17, 71
 - dynamic adjustments, 196
 - equality, vs., 338–340
 - full employment, 13
 - full production, 13
 - gains from generic drugs, 197
 - law of increasing opportunity cost, 14–16
 - market system, and, 45
 - monopolistic competition, 233–235
 - oligopoly, 246–247
 - producer surplus, 195
 - production possibilities curve, 14
 - production possibilities table, 13–14
 - productive efficiency, 13, 71
 - pure competition, 193–196
 - pure monopoly, 212–213
 - restatement of, 195–196
 - roundabout production, 39
 - X-inefficiency, 213, 214, 215
 - efficiency loss of tax
 - defined, 392
 - described, 391–392
 - elasticities, role of, 392–393
 - redistributive goals, 393
 - reducing negative externalities, 393
 - tax revenues, 391
 - efficiency losses, 110
 - graph, 111
 - efficiency wages, 309, 310
 - efficient capital, 163
 - elastic demand
 - defined, 89
 - perfectly elastic demand, 89, 175
 - total-revenue test, and, 90
 - elasticities
 - cross elasticity of demand, 99–100
 - efficiency loss of a tax, 392–393
 - factor demand, 279
 - income elasticity of demand, 100
 - law of diminishing marginal utility, 120–121
 - price elasticity of demand. *See* price elasticity of demand
 - price elasticity of supply, 97–98
 - product demand, 280

- real-world applications, 101–106
 - rent controls, 121–123
 - tax incidence, 101–104, 389–391
 - total-revenue test, 89–93
 - unemployment effect and, 301
 - unit elasticity, 89, 91–92
 - elasticity of factor demand, 279
 - Ellig, Jerry, 261*n*
 - employment. *See also* unemployment
 - domestic, increased, 419
 - employment discrimination, 345
 - Employment Insurance (EI), 343
 - Engen, Travis, 331
 - Enron Corporation, 144
 - enterprise, freedom of, 36–37
 - entrepreneur as residual claimant, 324
 - entrepreneurial ability, 12
 - entrepreneurs
 - role of, and economic profit, 323
 - entry
 - barriers to entry. *See* barriers to entry
 - collusion, obstacle to, 246
 - long run profit maximization, 189
 - monopolistic competition, 229
 - pure competition, 174
 - pure monopoly, 202
 - environment and global warming, 367–368
 - environment, the, and pollution, 47
 - equality
 - efficiency, *vs.*, 338–340
 - total utility, maximization of, 338–339
 - equality-efficiency tradeoff
 - defined, 340
 - equality, case for, 338–339
 - incentives, 339–340
 - inequality, case for, 339–340
 - utility maximization, 338–339
 - equation of linear relationship, 30–31
 - equilibrium
 - dominant strategy equilibrium, 239
 - externalities, 367
 - market equilibrium. *See* market equilibrium
 - Nash equilibrium, 239
 - price, 68, 70
 - purely competitive labour market, 293
 - quantity, 68, 70
 - wage in monopsony, 297
 - equilibrium position, 136–137
 - equilibrium price, 68, 70, 186–187
 - equilibrium quantity, 68, 70
 - equilibrium world price, 412
 - excess capacity, 233
 - excess demand. *See* shortage
 - excess supply. *See* surplus
 - excise tax, 390, 394
 - excludability, 48, 355
 - exclusive unionism, 299–300
 - expectations of consumer, 59, 62
 - explicit costs, 146, 323
 - export supply curve, 410
 - exports, 13
 - equilibrium world price, 412–413
 - supply and demand, in Canada, 409–411
 - supply and demand, in United States, 411–412
 - externalities
 - Coase theorem, 361
 - defined, 47, 360
 - equilibrium, 367
 - government intervention, 362–364
 - individual bargaining, 361
 - lawsuits, 362
 - liability rules, 362
 - Lojack auto antitheft device, 375
 - market for externality rights, 365
 - negative, 47
 - optimal amount of externality reduction, 366–367
 - optimal reduction of an externality, 367
 - positive, 47
 - reducing negative externalities, 393
 - shifts in MD and MC curves, 367
 - spillover benefits. *See* spillover benefits
 - spillover costs. *See* spillover costs
- F**
- factor cost, 280
 - factor demand
 - changes in prices of other factors, 277–278
 - complementary factors of production, 278–279
 - derived demand, as, 271
 - determinants of, 276–279
 - ease of factor substitutability, 280
 - elasticity of, 279
 - labour. *See* labour demand
 - marginal factor cost (MFC), 273
 - marginal productivity theory, 271–276
 - marginal revenue product, 272
 - market demand for factor, 273
 - MRP = MFC rule, 273
 - product demand, changes in, 277
 - product price, 272
 - productivity, 272
 - productivity, changes in, 277
 - pure competition, 273
 - rule for employing factors, 272–273
 - schedule, 273
 - substitute resources, 277–278
 - under imperfect product market competition, 273–276
 - factor market, 50
 - policy issues, 271
 - factor prices. *See also* factor demand
 - cost minimization, 271
 - demand, and, 271–276
 - determination of, 271
 - marginal productivity theory of income distribution, 284
 - money-income determination, 271
 - policy issues, 271
 - resource allocation, 271
 - factors of production, 13
 - changes in prices, 276, 277–278
 - complementary, 278–279
 - defined, 13
 - increases in factor supplies, 17–18
 - least-cost rule, 281, 283
 - optimal combination, 281–285
 - profit-maximizing rule, 282, 283
 - fair-return price, 221
 - fallacies
 - “after this, therefore because of this” fallacy, 22
 - causation fallacies, 22
 - correlation, *vs.* causation, 22
 - fallacy of composition, 21–22
 - post hoc, ergo propter hoc* fallacy, 22
 - fallacy of composition, 21–22, 418
 - fast food lines, 6
 - Federal Express, 248
 - federal government. *See* governments
 - financial capital, 12
 - financial institutions, 319–320
 - firms. *See also* businesses
 - defined, 143
 - horizontal integration, 143
 - industry, *vs.*, 188
 - market economy, in, 35
 - organization of, 143
 - pure competition, in. *See* pure competition
 - short-run competitive equilibrium, 186
 - size of, and costs, 160
 - vertical integration, 143
 - Fisher, Irving, 318
 - fixed costs, 153
 - fixed plant, 148
 - Ford Motor Company, 236, 255
 - Fording Inc., 256–258
 - Five Fundamental Questions, 41–45
 - Frank, Robert, 276
 - free lunch, 4, 5, 263
 - free-rider problem, 48, 49, 356
 - free trade case, 408
 - freedom
 - choice, of, 36, 78
 - enterprise, of, 36–37, 77–78
 - market system, and, 45, 86

- freedom of enterprise, 36
 Fujitsu, 285
 full employment, defined, 13
 full production, 13
Future and its Enemies, The (Postrel), 52
 Future Shop, 256
- G**
- game theory model
 basic concepts, 238–239
 collusion, 241–242
 cooperative games, 239
 defined, 238
 dominant strategy equilibrium, 239
 duopoly strategies, 240–241
 incentive to cheat, 242
 mutual interdependence, 241
 Nash equilibrium, 239
 non-cooperative games, 239
 payoff matrix, 240
 payoffs, 239
 players, 238–239
 positive-sum games, 239
 prisoner's dilemma, 239–240
 rules, 239
 strategies, 239
 zero-sum games, 239
- gasoline market, and inadequate information, 369
- gender discrimination, 346
- General Electric, 204
- General Mills, 247
- General Motors of Canada, 236, 255
- generalizations, 7
- generic drugs, 197
- gentlemen's agreements, 245
- geographic immobility, 307
- geographic specialization, 39
- George Weston Ltd., 143
- gifts, and marginal utility analysis, 128
- Gini ratio, 333
- global perspective
 carbon dioxide emissions, 368
 goods and services taxes, 395
 hourly wages of production workers, 291
 household expenditure spent on food, 140
 Index of Economic Freedom, 37
 OPEC nations, and daily oil production, 245
 short-term nominal interest rates, 323
 top 10 brand names, 249
 top 12 globalized nations, 408
 top one-fifth of income receivers, 337
- global trade. *See* international trade
- global warming, 367–368
- globalization, 420
- Globe and Mail*, 236
- gold, 121
- gold prices, volatility of, 99
- Goldin, Claudia, 346
- goods, 10
 alternative goods, 58, 67
 capital goods, 80
 capital goods. *See* capital goods
 capital-intensive, 401
 complementary good, 62, 100, 126
 consumer goods, 13
 government provision of, 48
 independent goods, 62, 100
 inferior goods, 61, 101
 labour-intensive, 401
 land-intensive, 401
 normal goods, 61, 100
 prices of related goods, 62–63
 private goods, 48, 355
 public goods. *See* public goods
 substitute good, 62, 100, 126
- Goods and Services Tax (GST), 396
- government failure, 355
 bureaucracy, and inefficiency, 386
 defined, 384
 hidden costs, 385
 imperfect institutions, 386
 limited and bundled choice, 385
 political bias, 385
 pork-barrel politics, 384
 rent-seeking behaviour, 385
 special-interest effect, 384–385
- government intervention
 direct controls, 362
 externalities, 362–364
 global warming, 367–368
 government restraints, 307–308
 noncash transfer, 334
 price supports. *See* price supports
 redistribution of income, 334
 spillover benefits, 47–48
 subsidies. *See* subsidies
 taxation. *See* taxation
- government-set prices
 additional consequences, 76–77
 price ceiling and shortages, 74–76
 price floors and surpluses, 76–77
- governments
 circular flow model, and, 50–51
 cross elasticity of demand, and, 100
 key concept, 3
 market system, in, 40–41, 79
 public choice theory. *See* public choice theory
 public goods, 48, 49
- graphical analysis
 law of diminishing returns, 150–151
- market equilibrium, 72
 price ceiling, effect of, 74
 price elasticity of demand, 93
- graphs. *See also* key graphs
 ceteris paribus, 28
 construction of, 26–27
 dependent variable, 26, 27–28
 direct relationship, 27
 equation of linear relationship, 30–31
 horizontal axis, 26
 independent variable, 26, 27–28
 inverse relationship, 27
 meaning of, 26–31
 measurement units, 29
 negative relationship, 27
 positive relationship, 27
 slope of a line, 29–30
 slope of curves, 31
 vertical axis, 26
 vertical intercept, 30
- Great Depression, 17
- Great-West Life Co., 256
- gross domestic product (GDP), 92
- GSR, 243
- Guaranteed Income Supplement (GIS), 342
- guiding function of prices, 42–44
- Gypsum, 243
- H**
- Hardin, Garrett, 99
- Hasbro, 289
- health care system
 benefits received vs. ability to pay, 388
 moral hazard problem, 372–374
 principal-agent problem, 309–310
- Herfindahl index, 238, 256
- homogeneous oligopoly, 235
- Honda, 238, 248
- horizontal axis, 26
- horizontal integration, 143
- horizontal merger, 256
- households
 income, determination of, 271
 market economy, in, 35
- human capital
 discrimination, 345
 investment in, 305
- human organs, market for, 78
- human specialization, 39
- hypotheses, 6
- I**
- IBM, 204
- illegal drugs, decriminalization of, 96
- Imasco Ltd., 237
- immigration model and income inequality, 337

- imperfect competition, 173
- imperfect institutions, 386
- Imperial Oil (Exxon), 255
- Imperial Tobacco Ltd., 237
- implicit costs, 146, 323
- import competition, 237, 238
- import demand curve, 411
- import quotas, 413
See also trade barriers
- imports
 equilibrium world price, 412–413
 supply and demand, in Canada, 409–411
 supply and demand, in United States, 411–412
- incentive function, 316
- incentive function of price, 316
- incentive pay plan, 308
- incentives
 cheat, to, 242
 economic rent, 316
 equality-efficiency tradeoff, 339–340
 game theory model, 242
 key concept, 3
 market system, and, 45, 86
 prices, 316
- inclusive unionism, 300–301
- Inco, 295
- income
 changes, 11
 changes in, and budget line, 134
 consumers, and demand, 58, 61
 flow, as, 335
 household, 271
 inequality in. *See* income inequality
 labour income, dominant role of, 327
 proportion of, and price elasticity, 95
 wealth, vs., 335–336
- income approach and government enterprises,
 profit of, 39
- income distribution
 income inequality. *See* income inequality
 marginal productivity theory of, 284
 poverty, 340–343
- income effect, 58, 125–126, 138–140
- income elasticity of demand
 coefficient, 100
 defined, 100
 inferior goods, 101
 insights into economy, 101
 normal goods, 100
- income inequality
 causes of, 334–337
 connections, 336
 defined, 332
 demographic changes, 337
 discrimination, 335
 education, 335
- equality-efficiency tradeoff, 338–339
 facts about, 332–334
 Gini ratio, 333
 government redistribution, effect of, 334
 growth in, 336–337
 highly skilled workers, greater demand for, 336–337
 immigration, and, 337
 income category distribution of personal income, 332
 income mobility, 334
 individual ability, and, 335
 international trade, and, 337
 Lorenz curve, 332–333
 luck, 336
 market power, 336
 misfortune, 336
 non-cash transfer, 334
 preferences, and, 335
 quintile distribution of personal income, 332
 risks, and, 335
 time dimension, 334
 total income distribution by families, 332
 training, 335
 trends in, 336
 unequal distribution of wealth, 335–336
 unionism, decline in, 337
- income maintenance system
 Canada Pension Plan (CPP), 342
 Employment Insurance (EI), 343
 Guaranteed Income Supplement (GIS), 342
 ideal welfare policy, 343–344
 Old Age Security (OAS), 342
- income mobility, 334
- income shares
 dominant role of labour income, 327
 relative shares of domestic income (1926–2005), 326
- increasing cost industry, 191–192
- independent goods, 62, 100
- independent variable, 26, 27–28
- Index of Economic Freedom, 37
- indifference curve
 budget line, 133–134
 convexity, 135–136
 defined, 134
 demand curve, derivation of, 137–138
 downward slope, 134
 equilibrium position, 136–137
 indifference map, 136
 marginal rate of substitution (MRS), 135
 utility, measurement of, 137
- indifference map, 136
- individual
 bargaining, and externalities, 361
- interaction among, 3
 key concepts, and, 3
- industrial concentration
 anti-combines laws, 255–256
 defined, 255
- industrial regulation
 costs of, 259
 inefficiency, 259
 legal cartel theory of regulation, 260
 monopoly, perpetuation of, 259–260
 natural monopoly, 259–265
 problems with, 259–260
 public interest theory of regulation, 259
 social regulation, vs., 261–263
- industrial union model, 300–301
- industry
 constant-cost industry, 189, 191
 decreasing-cost industry, 192–193
 defined, 143
 firm, vs., 188
 increasing-cost industry, 191–192
 pure competition, 143
 short-run competitive equilibrium, 186
- industry concentration measures
 concentration ratio, 237–238
 Herfindahl index, 238
- inefficiency
 bureaucracy, 386
 imperfect institutions, 386
 industrial regulation, 259
 inefficient "no" vote, 380
 inefficient "yes" vote, 380
 majority voting, 380–381
 monopolistic competition, 234
 pure monopoly, 214, 215
 X-inefficiency, 214, 215
- inefficient "no" vote, 380
- inefficient "yes" vote, 380
- inelastic demand
 defined, 89
 perfectly inelastic demand, 89
 total-revenue test, and, 91
- inequality, 284
- infant-industry argument, 418
- inferior goods, 61, 101
- inferior options, 123
- infinite slope, 29–30
- inflation, 4
- inflation-unemployment relationship tradeoff, 4
- information failures
 adverse selection problem, 371–372
 asymmetric information, 369
 buyers, inadequate information about, 370–372
 gasoline market, 369
 moral hazard problem, 370–371

- sellers, inadequate information about, 369
 surgeons, licensing of, 369–370
- innovation. *See also* technological advances
 economic profit, and, 325
- input substitution, 280, 285
- inputs, 13
- insurable risk, 324
- interest
 defined, 317
 loanable funds theory of interest, 318–320
 percentage, statement as, 317
 rate of interest. *See* interest rates
- interest groups, 381
- interest rates
 capital, allocation of, 322
 credit, price of, 327
 lending practices, 327
 market imperfections, and, 321
 maturity of loans, 321
 nominal interest rate, 322–323
 pure rate of interest, 321
 range of, 321
 real interest rate, 322–323
 research and development spending, 322
 risk, 321
 role of, 321–322
 size of loans, 321
 supply side of loanable funds market, 318
 time-value of money illustration, 318
 total output, and, 321
- interindustry competition, 237–238
- International Nickel Company of Canada (Inco), 204
- international perspective. *See* global perspective
- international trade
 barriers. *See* trade barriers
 comparative advantage, 401, 404
 competition, and, 401–404
 described, 21
 economic flows, 409–413
 exports. *See* exports
 gains from, 406–407
 import competition, 238
 imports. *See* imports
 income inequality, and, 337
 key graphs, 406
 price discrimination, 218
 production possibilities analysis and, 21
 protectionism, 416–421
 specialization, 401–404, 405
 terms of trade, 404
 trading possibilities analysis and, 405
- inverse relationship, 27
- investment, 12
- investment in human capital, 305
- “invisible hand,” 45, 196
- invisible poor, 342
- K**
- Kellogg, 247
- key concepts. *See* Ten Key Concepts
- key graphs
 average-total-cost curve, 158
 average-variable-cost curve, 158
 circular flow diagram, 51
 economic impact of tariffs, 415
 equilibrium price and quantity, 60
 equilibrium price and quantity, 69
 international trade, 406
 labour supply and labour demand, 294
 law of diminishing returns, 152
 long-run average-total-cost curve, 162
 long-run equilibrium, 194
 long-run equilibrium position of
 competitive firm, 194
 marginal cost curve, 158
 marginal utility, 119
 monopolistic competition, 231
 monopoly, 209
 production possibilities curve, 15
 profit maximization, 209
 profit maximization by monopolist, 209
 protective tariff, economic impact of, 415
 short run profit maximization in pure
 competition, 180
 total utility, 119
 trading possibilities line, 406
- Kleiner, Morris, 260*n*
- Krueger, Alan, 304*n*
- Krugman, Paul, 417
- Kudrie, Robert, 260*n*
- Kyoto Accord, 264, 368
- L**
- Labatt, 250
- labour, 12
 defined, 12
 division of labour, 39
 economic use of terms, 290
 highly skilled workers, greater demand for,
 336–337
 labour income, dominant role of, 327
 quality of, in advanced economies, 291
- labour demand. *See also* factor demand
 determinants of, 278
 fastest growing occupations, 278
 graph, 294
 growth of economy, impact of, 301
 occupational employment trends, 278
 purely competitive labour market, in, 293
 strength of, 305
 unions' limited influence on, 299
- labour intensive goods, 401
- labour market
 monopsony model, 295–297
 purely competitive labour market,
 292–293
 unions, and, 298–300
 wage differentials, 304–305
- labour market discrimination
 costs of, 345
 crowding model, 346–349
 economic analysis, 345–349
 employment discrimination, 345
 gender discrimination, 346
 human capital discrimination, 345
 occupational discrimination, 345
 occupational segregation, 346–349
 statistical discrimination, 345
 types of, 345
 wage discrimination, 345
- labour productivity, 149
- labour specialization, 161–163
- labour supply
 graphs, 294
 monopsony, in, 295
 purely competitive labour market, in, 293
- Lafarge Canada Inc., 245
- laissez-faire* capitalism, 36
- land, 12
 alternative uses of land, 317
 demand, changes in, 316
 location, 316–317
 perfectly inelastic supply, 315–316
 productivity differences, 316–317
- land-intensive goods, 401
- large crop yields, and price elasticity, 95
- Lavigne, Avril, 104
- law of demand
 defined, 57
 described, 57–58
 income effect, and, 58, 135
 law of diminishing marginal utility, 58,
 118–121
 “other things equal” assumption, 58
 substitution effect, and, 58, 135
- law of diminishing marginal product. *See* law
 of diminishing returns
- law of diminishing marginal utility
 defined, 118
 demand, and, 120–121
 described, 118
 elasticity, and, 120–121
 newspaper vs. soft drink vending, 120
 terminology, 118
- law of diminishing returns
 defined, 149
 graph, 152
 marginal cost, effect on, 186
 non-economic example, 149

- production costs, effect on, 186
 - rationale, 150
 - tabular example, 150
 - law of increasing opportunity costs
 - defined, 14
 - economic rationale, 14–16
 - shape of curve, 14
 - law of supply, 64
 - lawsuits, 362
 - learning by doing, 163
 - least-cost combination of factors, 281, 283
 - legal cartel theory of regulation, 260
 - lending practices, 327
 - Levitt, Steven, 375
 - liability rules, 362
 - licences, 204
 - limit pricing, 247, 249
 - limited income, 9
 - limited liability, 144
 - Linux, 202
 - loaded terminology, 21
 - loanable funds theory of interest
 - defined, 318
 - demand for loanable funds, 319
 - demand, changes in, 320
 - financial institutions, 319–320
 - market for loanable funds, 319
 - other participants in loanable funds market, 320–321
 - supply of loanable funds, 318–319
 - supply, changes in, 320
 - loans. *See* interest rates
 - logrolling, 381–382
 - Lojack auto antitheft device, 375
 - long run
 - defined, 98
 - monopolistic competition, 231, 232–233
 - price elasticity of supply, 98
 - profit, 147, 148
 - long run adjustment, 148
 - long run cost curve, 160–161
 - long run equilibrium, key graph, 194
 - long run production costs
 - constant returns to scale, 165
 - diseconomies of scale, 163–164
 - economies of scale, 161–163
 - firm size and costs, 160
 - long-run cost curve, 160–161
 - minimum efficient scale (MES), 165
 - long run profit maximization (pure competition)
 - assumptions, 189
 - constant-cost industry, 189, 191, 192
 - decreasing-cost industry, 192–193
 - entry, and economic profits, 189
 - exit, and losses, 190–191
 - identical cost curves, 189
 - increasing-cost industry, 191–192
 - long-run adjustment, 189
 - long-run equilibrium, 189–191
 - long-run supply for constant-cost industry, 191
 - overproduction, 195–196
 - perfectly elastic long-run supply, 191
 - underproduction, 195, 196
 - long run supply curve
 - constant-cost industry, 191
 - decreasing-cost industry, 192–193
 - defined, 191
 - increasing-cost industry, 191–192
 - loose oligopoly, 242
 - loss-minimization position
 - pure competition, 181–182, 183
 - pure monopoly, 211
 - low income cut-off (LICO), 341
 - luck, and income inequality, 336
 - Luscar Ltd., 256–258
 - luxuries, 9
- M**
- macro-micro distinction, 8
 - macroeconomics, 7–8
 - majority voting
 - inefficient "no" vote, 380
 - inefficient "yes" vote, 380
 - inefficient voting outcomes, 380–381
 - interest groups, 381
 - logrolling, 381–382
 - median-voter model, 383–384
 - paradox of voting, 382–383
 - managerial specialization, 163
 - margin, and choice, 3
 - marginal analysis
 - defined, 5
 - key concept, 3
 - scarcity, 6
 - slopes, and, 29
 - marginal benefits, 5
 - marginal cost (MC), 5, 64
 - average total cost, relationship to, 157
 - average variable cost, relationship to, 157
 - calculations, 156
 - defined, 156
 - graph, 158
 - law of diminishing returns, 186
 - marginal decisions, 156
 - marginal product, and, 157
 - MR = MC rule. *See* MR = MC rule
 - pure competition, in, 184–188
 - marginal factor cost (MFC), 273, 296–297
 - marginal opportunity costs, 14
 - marginal product (MP), 149, 157, 272
 - marginal productivity theory of factor demand
 - derived demand, 271
 - marginal factor cost (MFC), 273
 - marginal revenue product, 272
 - MRP = MFC rule, 273
 - product price, 272
 - rule for employing factors, 272–273
 - marginal productivity theory of income distribution, 284
 - marginal rate of substitution (MRS), 135
 - marginal revenue, 175, 205–206
 - marginal revenue product (MRP), 272, 276
 - marginal revenue product (MRP) schedule, 272
 - marginal revenue productivity, 305
 - marginal utility
 - defined, 58, 118
 - graph, 119
 - law of demand, and, 58
 - law of diminishing marginal utility. *See* law of diminishing marginal utility
 - total utility, vs., 118, 147–148
 - utility maximization. *See* utility-maximizing rule
 - marginal utility analysis
 - cash and non-cash gifts, 128
 - diamond-water paradox, 127
 - DVDs and DVD players, 126
 - time, value of, 127–128
 - marginal utility per dollar, 122
 - market based approach to spillover costs
 - advantages over direct controls, 366
 - market for externality rights, 365
 - operation of the market, 365
 - tragedy of the commons, 364
 - market demand, 59
 - market equilibrium
 - demand curve, 82
 - equilibrium price, 68
 - equilibrium quantity, 68, 70
 - graph of, 72
 - mathematics of, 82–84
 - supply curve, 83
 - market failure, 355
 - circular flow model, 50–51
 - defined, 46
 - externalities. *See* externalities
 - free-rider problem, 48
 - information failures, 369
 - public goods. *See* public goods
 - spillover benefits, 47–48
 - spillover costs, 46–47
 - market failures, 41
 - market for externality rights, 365
 - market imperfections
 - discrimination, 308
 - geographic immobility, 308
 - government restraints, 307–308

- interest rates, 321
 - job information, lack of, 307
 - marginal productivity theory of income
 - distribution, 284
 - unions, 307–308
 - wage differentials, and, 307–308
 - market period, 97
 - market power, and income inequality, 336
 - market segregation, 217
 - market structures
 - characteristics of basic models, 173–174
 - imperfect competition, 173
 - monopolistic competition, 173
 - oligopoly, 173
 - pure competition, 173
 - pure monopoly, 173
 - market supply, 64–65
 - market system, 49
 - capital accumulation, 44
 - capital goods, 38
 - changes, accommodation of, 42–44
 - characteristics, 36
 - characteristics of, 36–41
 - competition, 37
 - consumer sovereignty, 41
 - creative destruction, 44
 - decision makers, 35
 - defined, 35
 - dollar votes, 41
 - efficiency, and, 45
 - factor market, 50
 - Five Fundamental Questions, 41–45
 - freedom and, 45
 - freedom of choice, 36
 - freedom of enterprise, 36–37
 - government, role of, 38
 - guiding function of prices, 42–44
 - incentives, 45
 - “invisible hand,” 45
 - limitations of, 49
 - market failure, 46–49
 - markets and prices, 38
 - money, use of, 39–40
 - practice, in, 41–45
 - private property, 36
 - product market, 50
 - progress, promotion of, 44
 - self-interest, 37
 - specialization, 39
 - technological advances, 38–39, 44
 - markets
 - defined, 57
 - efficiency of, 45
 - human organs, for, 78
 - key concept, 3
 - loanable funds, for, 319
 - market system, and, 38
 - price and, 37
 - maturity of loan, and interest rates, 321
 - maximum willingness to pay, 196
 - MC = MB rule, 359
 - McDonald’s Restaurants, 167, 236
 - measurement units, and slopes, 29
 - median-voter model
 - defined, 383
 - example, 383
 - implications, 384
 - real-world applicability, 383
 - medium of exchange, 39
 - mercantilism, 413
 - mergers, 256
 - chartered banks, 258
 - conglomerate merger, 256–257
 - horizontal merger, 256
 - oligopoly, 236, 256
 - recent cases, 257–258
 - types of, 256–257
 - vertical merger, 256
 - microeconomics, 8
 - Microsoft antitrust case, 265–266
 - Microsoft Corp., 201, 204, 214
 - minimum acceptable price, 196
 - minimum annual income, 343
 - minimum efficient scale (MES), 165
 - minimum wage
 - conclusions, 304
 - criticisms of, 303
 - defined, 303
 - evidence, 304
 - support for, 304
 - misfortune, and income inequality, 336
 - Mitsubishi Corporation, 258
 - model, 6
 - Molson, 250
 - money, 12
 - defined, 40
 - economic resource, *vs.*, 12, 317–318
 - facilitation of trade, 40
 - inflation, and, 4
 - interest, 317–322
 - market system, in, 39–40
 - medium of exchange, 39–40
 - money capital, 12
 - monopolist, profit maximization, graph, 209
 - monopolistic competition
 - advertising, 229
 - Canadian manufacturing industries, 230
 - characteristics of, 228–229
 - complexities, 234
 - complications, 232–233
 - defined, 173, 228
 - demand curve, 230–232
 - easy entry and exit, 229
 - efficiency, and, 233–235
 - excess capacity, 233
 - graph, 231
 - independent action, 228
 - inefficiency, 234
 - long run, 232–233
 - no collusion, 228
 - price and output decisions, 230–235
 - price elasticity of demand, 232
 - product differentiation, 228–229
 - product variety, 233–235
 - relatively large number of sellers, 228
 - short run, 232
 - small market shares, 228
 - monopoly
 - anti-trust case (Microsoft), 265–266
 - bilateral monopoly, 302
 - characteristics of, 202–203
 - diamond trade, 223
 - economic profit, and, 325
 - examples of, 202
 - graph, 209
 - industrial concentration. *See* industrial concentration
 - natural monopoly, 165, 203, 220–221, 259–265
 - pure monopoly. *See* pure monopoly
 - regulation of, 220–221
 - single-channel marketing, 223
 - monopsony
 - defined, 295
 - equilibrium wage and employment, 297
 - examples of, 297
 - marginal factor (labour) cost, 296–297
 - unions in potential monopsony, 297
 - upward sloping labour supply, 296
 - wage rate in, 296
 - moral hazard problem, 370–371
 - MR = MC rule
 - characteristics of, 179
 - defined, 179
 - loss determination, 181
 - loss-minimization case, 181–182, 183
 - profit calculations, 179
 - profit-maximization case, 179–181
 - pure monopoly, 208–210
 - short-run supply curve in pure competition, 184–188
 - shutdown case, 182, 184
 - MRP = MFC rule, 273
 - mutual interdependence, 236, 241, 242–243
- N**
- Nash equilibrium, 239
 - Nash, John, 239
 - natural monopoly, 165, 203, 259
 - economies of scale, 165, 203
 - industrial regulation, 259–265

regulation, 220–221
 natural resources, 291
 NCR, 285
 necessities, 9
 negative externalities, 47
 negative slope, 29
 Net Income Stabilization Account (NISA), 104
 network effects, 214
 nominal interest rate, 322–323
 nominal wage, 290
 noncash transfer, 334
 noncompeting groups, 305–306
 noncooperative games, 239
 non-excludability, 356
 nonlinear curve, slope of, 31
 nonprice competition, 173, 229
 nonrivalrous consumption, 214
 nonrivalry, 356
 nontariff barrier, 413
 normal goods, 61, 100
 normal profit, 146, 177, 324
 normative economics, 8
 Nortel Networks, 39, 167, 204, 255, 324
 North Korea, central planning, 35

O

objective thinking pitfalls. *See* pitfalls to objective thinking
 occupational discrimination, 345
 occupational licensing, 260, 300–347
 occupational segregation
 defined, 346
 effects of crowding, 347–348
 elimination of, 348
 model, 346–348
 offers to purchase
 deficiency payments, comparison with, 106
 gain to farmers, 105
 loss to consumers, 105
 resource overallocation, 106
 surplus output, 105
 offshoring, 420–421
 Okanagan Spring, 250
 Old Age Security (OAS), 342
 oligopoly, 228
 advertising, and, 247–249
 beer industry, in, 250
 cartels, 244–245
 characteristics, 235–238
 collusion, 243–244
 control over price, 236
 cooperative strategies, 243–244
 defined, 173, 235
 differentiated oligopoly, 235
 diversity of, 242
 duopoly strategies, 240–241
 efficiency, 246–247
 entry barriers, 236
 few large producers, 235
 homogeneous oligopoly, 235
 increased foreign competition, and, 249
 limit pricing, 247
 loose oligopoly, 242
 measures of industry concentration, 237–238
 mergers, 236, 256
 mutual interdependence, 236, 242–243
 price leadership model, 246
 price war, 243, 246
 pricing behaviour. *See* game theory model
 pricing strategies, 243–247
 technological advances, 249
 tight oligopoly, 242
 OPEC. *See* Organization of Petroleum Exporting Countries (OPEC)
 opportunity cost ratio, 403
 opportunity costs, 11
 See also economic (opportunity) costs
 defined, 3, 14
 described, 4
 illustration, 14
 key concept, 3
 law of increasing opportunity cost, 14–16
 marginal, 14
 optimal quantity
 externality reduction, 366–367
 public goods, 356
 optimal reduction of an externality, 367
 Organization of Petroleum Exporting Countries (OPEC), 244
 other-things-equal assumption. *See ceteris paribus*
 output
 monopolistic competition, 230–235
 pure monopoly, 212–213
 surplus output, 105
 total output. *See* total output
 output effect, 280
 overproduction, 195–196, 196
 overt collusion, 244–245
 ownership of essential resources, 204

P

paradox of voting
 defined, 382
 preferences, 382
 voting outcomes, 382–383
 partnership, 143
 patents, 204
 pay for performance
 bonuses, 309
 commissions, 309
 efficiency wages, 309, 310
 incentive pay plan, 308
 negative side effects, 310
 piece rates, 309
 profit sharing, 309
 royalties, 309
 stock options, 309
 payoffs, 239
 PepsiCo, 256
 per-unit costs, 155–157
 perfectly elastic demand, 89, 175
 perfectly inelastic demand, 89
 perfectly inelastic supply, 315–316
 personal income tax, 389, 393
 Petro-Canada, 143, 148, 236, 255
 Pfizer, 204
 piece rates, 309
 pitfalls to objective thinking
 “after this, therefore because of this” fallacy, 22
 causation fallacies, 22
 correlation, vs. causation, 22
 definitions, 21
 fallacy of composition, 21–22
 loaded terminology, 21
 post hoc, ergo propter hoc fallacy, 22
 plant, 143
 plant capacity, 147
 political logrolling, 381–382
 pollution, 362
 pork-barrel politics, 384
 positive economics, 8
 positive externalities, 47
 positive relationship, 27
 positive slope, 29
 positive-sum games, 239
 Post, 247
post hoc ergo propter hoc fallacy, 22
 Postrel, Virginia, 52
 poverty
 absolute poverty, 340
 defined, 340
 human suffering, 349
 incidence of, by selected characteristics, 341
 income maintenance system, 342
 invisible poor, 342
 low income cut-off (LICO), 341
 pervasiveness of, 340–341
 relative poverty, 340
 Statistics Canada definition, 341
 Power Corp. of Montreal, 143, 256
 preferences. *See also* tastes
 consumer choice theory, 121

- income inequality, and, 335
- majority voting and, 380–384
- paradox of voting, 382
- price ceiling
 - black markets, 75
 - credit card interest-rate ceilings, 75–76
 - defined, 74
 - graphical analysis of effect, 74
 - rationing problem, 74–75
- price discrimination, 112, 257
 - concession stands, 219
 - conditions, 217
 - consequences of, 217–219
 - defined, 217
 - examples, 217–218
 - graphical analysis, 218–219
 - graphical portrayal, 218–219
 - international trade, 218
 - market segregation, 217
 - monopoly, and, 217–219
 - no resale, 217
 - production and, 218
 - professional sports teams, 219
 - profit and, 217
- price elasticity of demand
 - applications of, 95–96
 - average price and quantity, 89
 - coefficient, 89–90
 - decriminalization of illegal drugs, 96
 - defined, 89
 - determinants of, 93–96
 - extreme cases, 89
 - formula, 89–90
 - graphical analysis, 93
 - large crop yields and, 95
 - luxuries vs. necessities, 95
 - minimum wage, 114
 - monopolistic competition, 232
 - percentage change, calculation of, 87–88
 - proportion of income, 95
 - sales taxes, 95–96
 - substitutability, 94
 - time, 95
 - total-revenue curve, and, 92
 - total-revenue test, 89–93
- price elasticity of supply
 - antiques and reproductions, 99
 - applications of, 98–99
 - coefficient, 97
 - defined, 97
 - gold prices, volatility of, 99
 - long run, 98
 - market period, 97
 - short run, 98
- price expectations, 67
- price fixing, 257
- price floors
 - defined, 76
 - surpluses, and, 76
- price leadership
 - defined, 246
 - strategies, 246
- price maker, 202, 206–207
- price supports
 - agricultural, 104–106
 - crop restriction, 106
 - deficiency payments, 106
 - defined, 104
 - net income stabilization, 104
 - offers to purchase, 105–106
 - quota, 106
 - resource overallocation, 106
 - supply management programs, 104–106
 - supply restrictions, 106
- price-takers, 174
- price war, 243, 246
- prices
 - average price, 88
 - below-equilibrium, 104
 - changes in, and budget line, 134
 - consumer choice, and, 121
 - credit, price of, 327
 - equilibrium price, 60, 61–62, 68, 70, 186–187
 - factor prices, 66
 - government-set prices, 65–68, 74–77
 - guiding function of, 42–44
 - incentive function, 316
 - limit pricing, 247
 - market system, and, 38
 - markets and, 37
 - minimum acceptable price, 196
 - monopolistic competition, 230–235
 - new product, 287
 - pure monopoly, 212–213
 - rationing function of prices, 71
 - related goods, of, 59, 62
 - socially optimal price, 220–221
 - support price, 104
- principal-agent problem, 144–145, 308–310
- principle of gaps, 397
- principle of restriction, 397
- principles, 6, 7
- prisoner's dilemma, 239–240
- private goods, 48, 355
- private property, 36
- producer surplus, 106–111, 195–196
 - defined, 108
 - graph, 108
- product demand, 276, 277, 280
- product differentiation, 228
 - brand names, 229
 - defined, 228
 - location, 229
 - non-price competition, 173, 229
 - packaging, 229
 - price, control over, 229
 - product attributes, 228–229
 - service, 228
- product market, 50
- product surplus, 105–106
- product variety, 233–235
- production
 - full production, 13
 - overproduction, 195–196
 - price discrimination, and, 218
 - roundabout production, 39
 - short-run production relationships, 148–149
 - standard of living and. *See* standard of living
 - substitution in, 67
 - underproduction, 195, 196
- production costs
 - long-run production costs, 160–165
 - short-run production costs, 151–159
- production possibilities analysis
 - applications and examples, 19
 - economic growth, 17–19
 - examples and applications, 19
 - factor supplies, increase in, 17–18
 - future possibilities and present choice, 20
 - international trade, and, 21
 - present choices and future possibilities, 20
 - productive inefficiency, 17
 - technological advances, 18–19
 - unemployment, 17
 - women in the workforce, 19
- production possibilities curve
 - defined, 14
 - described, 14
 - economic growth, 19
 - employed women, effect of increase in, 19
 - graph, 15
- production possibilities table
 - assumptions, 13–14
 - defined, 13–14
 - need for choice, 13–14
- productive efficiency, 13, 71, 106–107, 109
 - defined, 193
 - equilibrium quantity, 196
 - monopolistic competition, 233
 - pure competition, 195
 - pure monopoly, 212
 - technological advances, 293–294
- productivity
 - advanced economies, in, 290
 - downward-enhancement model, in, 299

- factor demand, and, 272, 277
 - factor productivity, 276
 - intangible factors, 291
 - labour productivity, 149
 - marginal revenue productivity, 305
 - real wage, and, 292
 - role of, 290
 - technological advances, and, 291
 - productivity curves, 159
 - professional sports teams, 202, 219, 297
 - profit. *See also* economic (pure) profit
 - above normal profit, 324
 - normal profit, 146, 177, 324
 - price discrimination, and, 217
 - profit maximization
 - collusion, 243
 - graph, 209
 - long run (pure competition), 188–193
 - MR = MC rule, 179–180
 - property improvement, exceptions to, 182
 - pure competition, 177–183, 188–193
 - pure monopoly, 210, 211
 - short run (pure competition), 177–173
 - total-revenue-total-cost approach, 177
 - profit-maximizing combination of factors, 282, 283
 - profit-sharing plans, 309
 - progressive tax, 388
 - property rights, 36
 - property taxes, 389, 395
 - proportional tax, 388
 - protectionism, 416–421
 - protective tariff, 413
 - public choice theory
 - defined, 380
 - majority voting, and preferences, 380–384
 - public goods, 46
 - characteristics, 355–356
 - cost-benefit analysis, 357–358
 - defined, 48
 - demand for, 356–357
 - free-rider problem, 48
 - optimal quantity, 356
 - public interest theory of regulation, 259
 - public ownership, 259
 - public regulation, 256
 - See* industrial regulation
 - public sector. *See* governments
 - public utilities, 259
 - pure capitalism, 36
 - pure competition
 - average revenue, 175
 - characteristics of, 173–174
 - defined, 173
 - easy entry and exit, 174
 - efficiency, and, 192–196
 - equilibrium price, 186–187
 - factor demand, 273
 - firm's demand curve in, 174–176
 - firm, for the, 186–187
 - industry, for the, 186–187
 - “invisible hand,” 196
 - labour market. *See* purely competitive labour market
 - long run profit maximization, 188–193
 - loss-minimization position, 181–182, 183
 - marginal cost, 184–188
 - overproduction, 195–196, 196
 - perfectly elastic demand, 175
 - price-takers, 174
 - profit-maximization position, 179–181
 - relevance of, 174
 - short run profit maximization, 177–183
 - short-run supply curve, 184–188
 - shutdown position, 182, 184
 - standardized product, 174
 - technological advances, 291
 - underproduction, 195, 196
 - very large numbers, 173
 - pure monopoly
 - assessment of, 216
 - assumptions, 205
 - barriers to entry, 202–203, 204
 - blocked entry, 202
 - characteristics of, 202
 - cost complications, 213
 - cost data, 208
 - deadweight loss, 221–222
 - defined, 173, 202
 - demand, 205–208
 - economic effects, 212–216
 - economies of scale, 203, 213–214
 - efficiency, 212–213
 - examples of, 202
 - income transfer, 213
 - industrial concentration. *See* industrial concentration
 - legal barriers to entry, 204
 - licences, 204
 - loss-minimization position, 211
 - marginal revenue less than price, 205–206
 - market demand curve, 205
 - MR = MC rule, 208–210
 - network effects, 214
 - no close substitutes, 202
 - no supply curve, 210
 - output, 212–213
 - ownership or control of essential resources, 204
 - patents, 204
 - policy options, 216
 - possibility of losses, 211
 - price, 212–213
 - price discrimination, 217–219
 - price-maker, 202, 206–207
 - price-quantity determination, 208–212
 - pricing, 204
 - pricing misconceptions, 210–211
 - profit-maximizing position, 210, 211
 - rent-seeking expenditures, 215
 - research and development, 204, 215
 - simultaneous consumption, 214
 - single seller, 202
 - technological advances, 215
 - total profit vs. unit profit, 211
 - total-revenue test, 208
 - X-inefficiency, 213, 214, 215
 - pure profit. *See* profit
 - pure rate of interest, 321
 - purely competitive labour market
 - defined, 292
 - equilibrium, 293
 - market demand for labour, 293
 - market supply of labour, 293
- Q**
- quantity
 - average quantity, 88
 - change in quantity demanded, 63
 - change in quantity supplied, 67
 - equilibrium quantity, 68, 70
 - public goods, 356
 - quotas, 106, 413
 - See also* import quotas
 - economic impact of, 416
 - net costs, 416
- R**
- rate regulation
 - described, 220
 - dilemma of regulation, 221
 - fair-return price, 221
 - socially optimal price, 220–221
 - rational behaviour, 4–5, 121
 - rational self-interest, 4
 - rationing
 - function of prices, 71
 - system, 74–75
 - real capital, 12
 - real interest rate, 322–323
 - real wage
 - defined, 290
 - growth of, 292
 - long-run trend in Canada, 293
 - productivity, and, 292
 - recessions, 118, 246
 - regressive tax, 388
 - regulation
 - deregulation, 261
 - dilemma of regulation, 221
 - industrial regulation, 259–265

- legal cartel theory of regulation, 260
 natural monopolies, 220–221
 public interest theory of regulation, 259
 rate regulation, 220–221
 social regulation, 261–263
 spillover costs, and, 47
 regulatory agencies, 256
 relative poverty, 340
 rent. *See* economic rent
 rent seeking, 384
 rent-seeking behaviour, 385
 rent-seeking expenditures, 215
 reproductions, and price elasticity of supply, 99
 research and development. *See also* technological advances
 interest rates and, 322
 level and composition of, and interest, 322
 monopolies and, 215
 patents, 204
 residual profit, 324
 resource allocation
 deficiency payments, 106
 economic profit, and, 325
 factor prices, 271
 inefficient voting outcomes, 380–381
 offers to purchase, 106
 price supports, 106
 spillover benefits, effect of, 360
 spillover costs, effect of, 360
 resources. *See* economic resources
 revenue
 average revenue, 175
 marginal revenue, 175
 total revenue, 90, 175
 revenue tariff, 413
 risk
 income inequality, and, 335
 insurable risk, 324
 interest rates, and, 321
 uninsurable risk, 324–325
 rivalry, 48, 355
 RJR-MacDonald Ltd., 237
 Robert J. Hart and Company, 258
 Rogers Communications, 202, 214, 261
 Ross, David, 215*n*
 Rothmans, Benson & Hedges Inc., 237
 roundabout production, 39
 Rouse, Cecilia, 346
 Royal Bank of Canada, 258
 royalties, 309
 Russia
 price discrimination in, 218
 recent reforms in, 35
- S**
 salaries. *See* wages
 sales taxes, 389, 394
 saving and expectations, 14
 scale
 constant returns to scale, 165
 diseconomies of scale. *See* diseconomies of scale
 economies of scale. *See* economies of scale
 minimum efficient scale (MES), 165
 scalping, 70
 scarcity
 choice and, 4
 economic resources, 12–13
 Scherer, F.M., 215*n*
 scientific method, 6
 Sears, 256
 securities, 143–144
 self-interest, 4, 37
 self-sufficiency argument, 417
 self-sufficiency output mix, 403
 selfishness, 5
 sellers, inadequate information about, 369
 sellers, number of, 67
 services, 10
 Sheetrock, 243
 Shell Canada, 255
 Shepherd, William G., 215*n*
 short-run
 defined, 98, 148
 monopolistic competition, 231, 232
 price elasticity of supply, 98
 profit, 157–148
 short-run adjustment, 148
 short-run production costs
 average costs, 155–156
 fixed costs, 153
 law of diminishing returns, effect of, 186
 marginal costs, 156–157
 per-unit costs, 155–157
 total cost, 154
 variable costs, 154
 short-run production relationships
 average product (AP), 149
 law of diminishing returns, 149–151
 marginal product (MP), 149
 total product (TP), 148
 short-run profit maximization (pure competition)
 break-even point, 177
 MR = MC rule, 179–180
 total-revenue-total-cost approach, 177
 short-run supply curve
 defined, 186
 MR = MC rule, relationship with, 185
 shifts, 186
 shortage, 70, 74–76
- simultaneous consumption, 214
 single-channel marketing, 223
 slope of a line
 defined, 29
 infinite slope, 29–30
 marginal analysis and, 29
 measurement units and, 29
 negative slope, 29
 positive slope, 29
 zero slope, 30
 slope of curves
 described, 31
 indifference curve, 134, 135
 Smith, Adam, 45, 127
 social regulation
 criticisms of, 263
 defined, 261
 features of, 262
 industrial regulation, *vs.*, 262
 less *vs.* more government, 264
 no free lunch, 263
 optimal level of, 262–263
 proponents of, 262–311
 socialism, 35
 socially optimal price, 220–221
 sole proprietorship, 143
 Soviet Union, private ownership and, 35
 special-interest effect, 384–385
 specialization
 absolute advantage, 402
 basic principle, 402
 comparative advantage, 401–402, 404
 comparative costs, 402, 404
 defined, 39
 division of labour, 39
 gains from, 404
 geographic specialization, 39
 international trade, 401–404, 405
 key concept, 3
 labour specialization, 161–163
 managerial specialization, 163
 terms of trade, 404
 trading possibilities line, 405
 speculators, 52
 spillover benefits
 Coase theorem, 361
 correction for, 47–48
 defined, 47
 government provision of goods, 48
 Lojack auto antitheft device, 375
 resource allocation, effect on, 360
 subsidies, 48, 363–364
 spillover costs
 Coase theorem, 361
 correcting for, 47
 defined, 46
 direct controls, 363

- legislation, 47
 market-based approach, 364
 resource allocation, effect on, 360
 taxation, 47
- Sprint, 202, 261
- St. Lawrence Cement Inc., 245
- standard of living, 3
- standardized product, 174
- static economy, 324
- statistical discrimination
 defined, 345
 labour market example, 345
 profitable, not malicious, 345
- Statistics Canada, 341
- Stelco, 236, 255
- stock options, 309
- stocks, 143
- strategic trade policy, 418
- subsidies
 buyers, to, 363
 change in supply, 67
 consumers, 48
 government provision of, 364
 producers, to, 363
 spillover benefits, 48, 363–364
 suppliers, 48
- substitutability, and price elasticity, 94
- substitute good, 62, 100, 126
- substitution effect, 58, 125–126, 135,
 138–140, 277–278
- substitution in production, 67
- successful startup firms, 166
- sunk costs, 167
- supply. *See also* supply and demand
 changes in quantity supplied, 67
 changes in supply, 64–67
 defined, 64
 determinants of, 65
 excess supply, 70
 law of supply, 64
 loanable funds, 318–319, 320
 market, 64–65
 price elasticity of supply, 97–98
 restrictions, 106
- supply and demand. *See also* supply and
 demand analysis
 Canada, in, 409–411
 complex cases, 73
 cross elasticity of demand, 99–101
 demand, changes in, 71–72
 equilibrium price, 68, 70
 equilibrium quantity, 68, 70
 export and import, in United States,
 411–412
 government-set prices, 74–77
 income elasticity of demand, 100–101
 “other-things-equal” assumption, 73–74
- price elasticity of demand. *See* price elas-
 ticity of demand
- price elasticity of supply, 97–98
- rationing function of prices, 71
- shortages, 70
- supply decrease, demand decrease, 74
- supply decrease, demand increase, 73
- supply increase, demand decrease, 73
- supply increase, demand increase, 73
- supply, changes in, 72
- surpluses, 70
- supply and demand analysis
 antiques and reproductions, 99
 applications of price elasticity of supply,
 98–99
 elasticity and tax incidence, 101–104
 gold prices, volatility of, 99
- supply curve
 costs, and, 64
 defined, 64
 long-run supply curve, 191
 mathematics of market equilibrium, 83
 pure monopoly, 210
 short-run supply curve, 184–188
- supply management programs, 104–105
- support price, 104
- surgeons, licensing of, 369–370
- surplus output, 105
- surpluses
 price floors, and, 76
 supply and demand, 70
- T**
- tacit understandings, 245
- tariffs, 413
 See also trade barriers
 economic impact of, 414–415
 net costs, 416
 protective, 413
 revenue, 413
- tastes, 59, 60, 121
- tax incidence
 corporate income tax, 394
 division of burden, 390
 efficiency loss, and, 391–392
 elasticity, and, 101–104, 389–391
 excise tax, 394
 personal income tax, 394
 probable tax incidence in Canada,
 393–395
 property taxes, 395
 sales taxes, 394
- tax reforms
 Goods and Services Tax (GST), 396
 in 1987, 396
 since 2000, 396–397
- taxation
 ability-to-pay principle, 387–388
 apportionment of tax burden, 387–389
 benefits-received principle, 387
 change in supply, 67
 corporate income tax, 389
 dividends, 144
 division of burden, 102
 double taxation, 144
 elasticity, and, 101–104
 excise tax, 390
 Goods and Services Tax (GST), 396
 personal income tax, 389
 progressive tax, 388
 property taxes, 389
 proportional tax, 388
 redistributive goals, 394
 regressive tax, 388
 sales taxes, 95–96, 389
 spillover costs, 47, 363
 value-added tax (VAT), 396
- technological advances. *See also* innovation;
 research and development
 change in supply and, 66–67
 changes in productivity, and, 277
 economic growth and, 18–19
 market system and, 38–39, 44
 oligopoly, 249
 patents, 204
 productivity, and, 291
 pure monopoly, 215
 technology and capital goods, 38–39
- Teck Cominco Ltd., 256–258
- Telus, 202, 214, 261
- Ten Key Concepts
 economy as a whole, 3–4
 effectiveness of markets, 3
 facing tradeoffs, 3
 individual, and the, 3
 inflation-unemployment tradeoff, 4
 influence of incentives, 3
 interaction among individuals, 3
 margin, and choice, 3
 money and inflation, 4
 opportunity cost, 3
 role of governments, 3
 specialization and trade, 3
 standard of living, and production, 3
- terms of trade, 404
- theoretical economics
 abstractions, 7
 ceteris paribus, 7
 defined, 7
 generalizations, 7
 other-things-equal assumption, 7
 principles, 7
 terminology, 7
- theory

development of, 6–7
 law or principle, as, 6
 use in economics, 7
 “there is no free lunch,” 4, 5
 ticket scalping, 70
 tight oligopoly, 242
 time
 consumer choice theory, and, 127–128
 income inequality, and, 334
 input substitution process, 280
 price elasticity of demand, and, 95
 value of, 127–128
 Toronto Dominion Bank, 258
 Toronto Stock Exchange, 57
 total cost, 41, 154
 total output
 economic profit, and, 325
 interest, 321
 total product (TP), 148
 total revenue (TR), 41, 90, 175
 total utility
 consumer surplus, 147–148
 defined, 118
 graph, 119
 marginal utility, *vs.*, 118, 147–148
 total-revenue test
 defined, 90
 elastic demand, 90
 inelastic demand, 91
 pure monopoly, 208
 total revenue (TR), 90
 total revenue curve, 92
 unit elasticity, 91–92
 total-revenue-total-cost approach, 177
 toxic waste, 362
 Toyota, 248
 trade, 3
 See also international trade
 trade adjustment assistance, 420
 trade barriers, 413–416
 tradeoffs, 11
 defined, 11
 government-set prices, 77–78
 inflation-unemployment tradeoff, 4
 key concept, 3
 trading possibilities line, 405
 tragedy of the commons, 49, 364
 training
 income inequality, and, 335
 wage differentials, 305
 transition costs, 368
 Tucker, A. W., 239
 Twain, Shania, 276
 tying contracts, 257

U

underproduction, 195, 196

unemployment
 inflation-unemployment tradeoff, 4
 inflation. *See* inflation-unemployment relationship
 productive inefficiency and, 17
 union-induced wage increases, effect of, 301
 unequal distribution of wealth, 335–336
 uninsurable risk
 defined, 324
 economic environment, changes to, 324
 economic structure, changes in, 324
 government policy, changes in, 325
 sources of, 324–325
 union-produced goods or services, 299
 unions
 bilateral monopoly model, 302
 craft union model, 299–300
 decline in, and income inequality, 337
 downward-enhancement model, 298–300
 exclusive union model, 299–300
 goals of, 299
 inclusive union model, 300–301
 industrial union model, 300–301
 limited influence on labour demand, 299
 occupational licensing, 300
 politics, 299
 potential monopsony, 297
 wage differentials, and, 307–308
 wage increases and unemployment, 301
 unit elasticity
 defined, 89
 total-revenue test, and, 91–92
 United States, imports and exports, 411–412
 United Steelworkers, 300
 unlimited wants, 9–10
 Upper Canada, 250
 UPS, 248
 used cars, 370
 utility, 118
 defined, 4
 diminishing marginal, 58
 marginal utility, 58, 118, 119
 measurement of, 137
 subjective nature of, 118
 total utility, 118, 119, 338–339
 usefulness, *vs.*, 118
 utils, 118
 utility-maximizing rule
 algebraic restatement, 124
 decision-making process, 123
 defined, 121
 demand curve, and, 124–126
 diamond-water paradox, 127
 income effects, 125–126
 inferior options, 123
 marginal utility per dollar, 122

numerical example, 122–123
 substitution effects, 125–126

V

value-added tax (VAT), 396
 variable costs, 154
 variable plant, 148
 Verson, 166
 vertical axis, 26
 vertical intercept, 30
 vertical merger, 256
 voluntary export restraint (VER), 413
 voting. *See* majority voting

W

wage determination
 bilateral monopoly model, 302
 craft union model, 299–300
 demand-enhancement model, 298–300
 exclusive union model, 299–300
 inclusive unionism, 300–301
 industrial union model, 300–301
 minimum-wage controversy, 303–304
 monopsony model, 295–297
 occupational licensing, 300
 pay for performance, 308–310
 productivity, 290
 purely competitive labour market, 292–293
 unions, 299–302
 wage differentials. *See* wage differentials
 wage differentials
 ability of workers, 305
 compensating differences, 306–307
 defined, 304
 education, 305
 investment in human capital, 305
 marginal revenue productivity, 305
 market imperfections, 307–308
 non-competing groups, 305–306
 training, 305
 wage discrimination, 345
 wage rate
 defined, 290
 monopsony, in, 296
 wages
 chief executive officers, 311
 efficiency wages, 309, 310
 equilibrium, in monopsony, 297
 general level of wages, 290
 industrially advanced nations *vs.*
 developing nations, 277
 minimum wage, 303–304
 nominal wage, 290
 purely competitive labour market, 292–293
 real wage, 290, 292

- union-induced wage increases, and unemployment, 301
 - Wal-Mart, 145
 - wants, unlimited, 9–10
 - water-diamond paradox, 127
 - wealth, 335–336
 - welfare policy
 - common features, 343–344
 - conflicts, 344
 - goals, 343–344
 - willingness to pay, 196
 - Windows, 202, 214
 - winner-take-all markets, 276
 - Winston, Clifford, 261*n*
 - women
 - employment, effect of, 19
 - expanded job access, 19
 - gender discrimination, 346
 - rising wage rates, 19
 - workforce, in the, 19
 - world price, 409
 - World Trade Organization, 422
 - WorldCom, 144
- X**
- X-efficiency, 213, 214, 215
 - Xerox, 204
- Z**
- zero slope, 30
 - zero-sum games, 239