Index

AFTA 36–7, 38–9
age
Japan rewards seniority 81–2
apparel 42
see also garments; textiles
Asia
SE 8
see also China
Argentina 66
arms-length transaction 6, 9, 16–17
assembly jobs 11, 18
Australia 66, 103
Austria 66, 86, 91, 103
automotive industry 6, 7, 9, 19, 20, 26, 28, 31, 41, 42, 43–8, 96
components 40–41
Barbie doll 7
batteries, long-life 8
BEA (Bureau of Economics Analysis)
data 119
see also pay
BEC 28
Belgium 66, 103
bonus payments 125
boundaries of firms 16, 17
Brazil 66
broadband 8, 13
Broad Economic Category (BEC) 28

Canada 24, 66, 103
categories see classification
Census of Manufactures see surveys
chemicals industry 8, 17, 23
China 3, 32, 36–7, 38–9, 43, 44–5, 66, 103, 148
CIF 23
circuits, printed 22
see also semi-conductors
classification systems 119
Broad Economic Category (BEC) 28
Japan Statistical Industry Classification 109
Standard Industrial Classification (SIC) 24, 88, 90, 105, 106, 107
see also BEA; ISCO; ISIC; standards; SITC
Clestina 21
CM see surveys
communications 8
see also costs, service link, broadband
‘comparative advantage’ theory see theories
components 150
automotive 148
econometric analysis 5–68
electrical machinery 40–48
exports 35, 36, 43
imports 38–9
office machines 40–48
power-generating 40
road vehicles 40
Shitauke (component manufacturers and assemblers)
see also parts
computer 9
chips 8, 20
see also semi-conductors
laptops 9
organisers 9
PCs
exports 36–7
imports 38–9
software 23
confidential information 17
contract

difficulties 16
manufacturers 9

Costa Rica 7, 66
costs 13, 14
fixed 13, 14
marginal 14
service link 8, 13, 14, 51, 54, 147
transaction 16–17
unit labour costs 3, 53, 55, 58, 61, 63, 71

see also labour market;
transportation

Crude oil 32
currency
exchange rates 23, 62
yen appreciation 1990s 32

Czech Republic 66
data, trade 5–29, 62–8
see also statistics

Denmark 66, 91, 103
design 11
see also IP; R&D
developing countries 35, 36–7, 38–9, 54, 103
see also Asia, East; China, Hong Kong, Korea, Malaysia, Phillipines, Singapore
domestic workforce 110–45
see also employment; skills
econometric analysis 5–68, 92–6, 110–45
education 82–3, 89
see also skills
electrical machinery 11, 17, 41, 42, 74, 96
electronics 7, 9, 20, 21, 22, 31, 41, 43–8
see also semi-conductors
employment
effect on Japan's employment of 'exporting jobs' 2, 110
globalization in manufacturing 3–4
production fragmentation 110–45, 149
manual labour 7, 75
see also skills, production/
non-production
substitution effect 118, 119, 123
temporary workers 20
see also labour market; skills
engineering 11, 123
entrepot trade 23
see also ports
Ericsson 19
estimation method 55–61, 125–7
first difference 100
generalized least squares 97
generalized method of moments 125
LSDV (least square dummy variable) 97
weighted least squares (WLS) 98, 99, 100
within-transformation 97, 99, 100, 126, 127, 128, 130, 131, 132, 133, 134, 135, 136, 137, 138
EU 127–8, 134–5, 138, 140
'EU 15' 43
exports 36–7, 43, 44–6
imports 38–9, 43, 44–6
processing schemes 51
IPT (Inward Processing Trade) 24, 51
OPT (Outward Processing Trade) 24
exchange rates
RER (real exchange rates) 54, 65–6
see also currency
exports out of Japan 31–2, 34–9, 42, 44–5

Factor Price Equalization 15
FDI (foreign direct investment) 75, 110, 116, 138, 143
'final goods' 46–7
Finland 66, 103
Flextronics 19
FOB (free on board) 23
food sector 74
Ford 19
France 36–7, 38–9, 66, 86, 88, 90, 103
freight forwarders 65
see also CIF; infrastructure; ports
furniture 42, 96
garment industry 7, 42
see also apparel; textiles
GDP deflator 65
consumer price index 125
General Motors (GM) 19
geographic proximity 50–68
Germany 36–7, 38–9, 66, 86, 88, 90, 103
global trends 31–49
gravity
temperature 2 3 50–68, 148
variables 63
Greece 103
Grossman-Hart see models
Hausmann-Wu specification test 56
Heckscher-Ohlin theory 10, 15
heteroscedasticity 56, 57, 60, 98, 99, 100, 107, 126, 129, 137
Hewlett Packard 19
Hitachi 20
Hong Kong 23, 36–7, 38–9, 66, 86, 88, 90, 103
Hungary 66
import penetration 26, 27, 89, 90, 91, 101, 124, 125, 128, 131, 133, 135, 137
imports into Japan 32–4, 36–9, 42
indigenous workforce 110–45, 149
see also employment; skills
India 66
Indonesia 66, 103
industrial organization see model
infrastructure 53–4, 61, 64–5, 150
input-output see I-O Tables
institutional structure 53–4, 64
see also legal system
insurance see CIF
Intel Corp 7
‘intermediate inputs’ 27
international fragmentation of
production 6
international production networks
19–21
modular production network 8, 9, 17, 19, 21
modular technology 8, 9, 19
relational production network 19, 20
‘I-O’ Tables 25–6, 27, 29, 89
imported intermediate inputs 25–7, 88, 89, 90–92, 94, 105, 106
IPT see EU
Ireland 51, 66, 103
ISCO (International Standard
Classification of Occupations) 81
ISIC (International Standard Industry
Classification) 62
Israel 66
Italy 66, 86, 88, 90, 103
ITC (information/technology
communications sector) 116, 123
see also computers; telecoms
JIP 96–7, 104–5 (Japan Industrial
Productivity)
jobs see employment
Korea, Republic of 36–7, 38–9
labour market 110–45
adjustment 86–108, 148
costs x, 15, 18, 5, 58, 61, 150
unit costs (ULCs) 53, 61, 63–4
structural adjustments 3, 70–85, 86–108
temporary workers 20
lead firms 9, 19, 20
legal system 54
see also institutional structure
Lerner-Pearce theory 10, 11
literature
business 5–29
econometric analysis 51–2
theoretical 5–29
machine tools 23
machinery 31, 42, 44–5, 53, 55–6, 62, 73–4, 96, 116
see also automotive industry;
electronics
Malaysia 7, 66, 103
manual labour 7, 75
‘market thickness’ 16, 18
materials
imported 32
raw 15, 29
measurement 21–8, 55–6
metals 27, 116
methodology
estimation 125–7
METI surveys
Basic Survey of
Business Structure and Activity
International fragmentation of production

see also surveys
Mexico 66, 103
milling 74
Ministry of Economy, Trade and Industry (METI) 3, 84, 111, 125, 139, 140–46
missiles 9
MNEs x, 2, 4, 7, 9, 19, 22, 50, 64, 138, 148, 150
domestic employment harmed by international fragmentation of production? 4, 111–45
employment adjustment in 110–45
European 8
models
(fixed v random effects) 97
gravity model of bilateral trade flows 53–5
Grossman-Hart property rights model 17
industrial organization 15–19
monopolistic competition 17
Ricardian theory 10, 53
motor industry see automotive industry
NEC 21
neo-classical trade model 5, 9–15, 5–29
Netherlands, The 66, 103
New Zealand 103
Nissan 20
Norway 66, 103

OAP see statistics; US
OECD countries 87, 94, 98–102, 103
use of OECD workforce having skills downgrading effect? x, 3, 87
office machinery 42, 96
see also electronics
OLS (ordinary least squares) 126, 127
OPY see EU
outsourcing
‘broad’ 26
‘narrow’ 26
packing jobs 11
parts and components 5, 6, 8, 16, 27, 28, 50–68
firm-specific 9
product-specific 9
trade data 5, 21–4
pay 14–15, 51–2, 78–9
BEA wage data 64
increase for low-skilled workers/fall of production costs 13, 14–15
US 68
see also labour market, costs; skills
pharmaceuticals 23
Phillippines 7, 66, 103
photographic apparatus 42
plastic products 96
Poland 66
policy 1, 2, 149–50
see also legal system
ports 54, 64
see also entrepot trade; infrastructure
Portugal 66, 103
processing jobs 11
producer price index 65
wholesale price index 65, 125
product fragmentation 6
production
fragmentation 86–108
jobs 75–6, 81–2, 84
see also skills (production/non-production workers)
professional scientific exports/imports 42
quality control 20

R&D 11, 20, 95, 99, 104, 119, 120, 123, 125
regression analysis 66, 87, 96, 98, 104, 122, 127
regulatory environment see institutional structure; legal system
RER see exchange rates
research and development see R&D
Research Institute of Economy, Trade and Industry (RIETI) 104, 143, 145
Research Institute of Industrial Economics (IUI) 121
Ricardian theory 10, 53
Ricardo-Viner theory 10
Russian Federation 66
Rybczynski theory 15
scale effect 101, 118, 122–3
scientific equipment 116
semi-conductors 7, 19
service link costs see costs
sewing machines 7
shipping see freight; infrastructure; ports
Singapore 36–7, 38–9, 66, 103
SITC (Standard International Trade Classification) 21–3, 28, 40, 42, 43, 56, 62–3, 64
skills 32, 52, 53, 70–84, 86–108
affected by deindustrialization 75
geographical fragmentation of trade? ix–x
East Asian workforce x
highly-skilled 10, 11, 77, 123
design 11
engineering 11, 123
IT 123
non-production 75–6, 81–2, 84, 105
see also R&D
low-skilled 10, 11, 77, 149–50
assembly 11, 18
packing 11
processing 11
production 75–6, 81–2, 84, 105
measure of worker skills’ intensity 80–81
OECD countries’ workforce x, 3, 87, 103
see also OECD
relative pay 77–80
supply and demand 77–80
upgrading 75–84, 86–108, 148
unskilled workers 4
Slovakia 66
Slovenia 66
Solectron 19, 21
Sony 21
sound recording apparatus 42, 43–8
see also electronics
South Africa 66
South America 136–7, 140
Spain 66, 103
standards see Broad Economic Category (BEC); classification systems; ISCO; SITC
statistics 5
Input-Output Table (I-O Table) 5, 21, 25–7, 29, 89
Offshore Assembly Programme (OAP) 5, 21, 24–5, 29, 51
see also US
UN Comtrade 27, 34, 39, 42, 45, 49, 56, 62, 67, 96, 105, 106
trade data see parts and components
steel industry 24, 27
see also metals
Stolper-Samuelson theorem 15
subcontracting 6, 17–8
suppliers see ‘market thickness’ surveys
Annual Survey of Manufacturers 25, 88, 90
Basic Survey on Wage Structure 76, 83, 84
Census of Manufacturers (CM) 76, 84
see also METI surveys
Sweden 36–7, 38–9, 66, 86, 88, 91, 103, 110, 111, 121–2
switchgear 22
Switzerland 66
Taiwan 66, 103
tariffs 8, 24, 52
multilateral tariff reductions 25
see also CIF; FOB
tax
exemptions 24, 51
incentives 7
see also tariffs
technology see computers; ITC
telecoms 42, 43–8
see also electronics; ITC
temporary workers 20
Texas Instruments 7
textiles 11, 73–4, 116
see also apparel; garments
International fragmentation of production

Thailand 66, 103
theoretical literature 9–21
theories (theorem) 5–29
‘comparative advantage’ 5
Factor Price Equalization 15
Heckscher-Ohlin 10, 15
Lerner-Pearce 10, 11
Ricardian 10
Ricardo-Viner 10
Rybczynski 15
Stolper-Samuelson 15
toasters 9
tobacco 96
Toshiba 20
Toyota 20
toys
Mattell Barbie doll 7
trade
data see EU, IPT/OPT; statistics
fragmentation trade 1–3, 8, 9, 15,
21, 22, 23, 25, 26, 27, 29, 31, 32,
34–6, 40–43, 46, 48, 50–69, 86,
87, 88, 89, 90, 93, 96, 98–102,
106, 108, 118, 147, 148, 149
theory see theories
trade facilitation 54, 55, 56, 68
transportation 74, 116
costs x, 8, 13, 15, 23, 147
air freight 8
containers 8
equipment exports/imports 42
see also costs, service link;
infrasture
Turkey 66
UK 36–7, 38–9, 66, 70, 86, 88, 90,
103
ULCs see labour market costs
UN see Broad Economic Category
(BEC)
unionisation 123
United Kingdom see UK
unskilled workers see skills
US 66, 103, 106, 132–3
experience ix, x, 1, 2, 3, 50–68
exports 35, 36–7, 43–5
imports 32, 38–9, 40, 43–5
industry sectors 7
inward processing trade (IPT)
51
Japanese firms in 117–18
loss of domestic jobs 110, 121
manufacturing 35–8
OAP (Offshore Assembly
Programme) 7, 52
outsourcing/effect on non-
production wages 88
skills upgrading 90, 107
Tariff Act 1930 24
US–Japan comparison 19, 47–8,
50–68, 110–11, 113, 147, 148
value-added 7, 24, 25, 63, 71, 94, 95,
96, 104
vertical structure (Keiretsu) 20
Vietnam 103
wages
wage rates 68
see also pay; labour market
workforce, indigenous to Japan 32
World Bank
Development Indicators 126
Doing Business Survey 65
yen see currency; exchange rates