ABC (Agriculture Bank of China), 455–456, 461, 464	diversification of, 266–267 famines of 1959–1961, 4, 71–72, 80, 82,
Accounting regulations, technology policy and, 367	115–116, 161, 164–165, 168, 181, 238, 240, 252–253, 264
Acid rain, 494, 495–496	genetically modified organisms (GMOs),
Aging population	267–268
impact on economy, 175–176	globalization and, 268–269
retirement and, 175–176, 187–189, 480	government monopoly over, 60
social security and, 122-123, 186, 202-206	Great Leap Forward (1958–1960) and,
Agricultural Bank of China (ABC), 455–456,	70–71, 235, 272–273
461, 464	green revolution in, 89–90, 252–253,
Agricultural collectives, 89–91, 233–240. See	257–263
also Agriculture in China; Township and	induced-innovation hypothesis and,
village enterprises (TVEs)	255–258
contractual arrangements with, 120-122, 241,	land reforms (1950–1952), 65
244, 246–248	land reforms (1978–1984), 120, 240–246
discussion of, 236–238	motive power in, 260, 263–265
dissolution of, 99, 183, 232, 243	origins of market economy in, 88–90
features of, 234–236	output increase in market economy, 89–91
"Grain First" policy, 239–241, 252–254	in restructuring farm economy, 89–91
household income from, 234–236	technical innovation in, 254–258
market transition, 122, 240–246	technical revolution in, 251–270
origins under Mao, 67–68, 114–115, 252–254	in traditional economy, 34–40
return of family farms and, 120	traditional triad in, 35–36, 258–263
urban-rural divide and, 114–115, 119	villages and, 232–233
work-point system and, 235-238, 241, 244	Aihui-Tengchong line
Agricultural Development Bank, 457–458,	landforms and, 18–19, 21, 498
480	population and, 18–19, 21, 30
Agricultural producers cooperative (APC),	Air pollution, 336, 490–491, 493–494
235	Albaladéjo, M., 399
Agricultural tax	Alcatel, 357–358
abolition of, 134, 268, 278, 439–440	Allen, Franklin, 481
imposition of, 233	Anderson, J., 261
Agriculture in China. See also Agricultural	Anglo-American system of corporate
collectives; Structural change	governance, 319, 321–323
challenges of the future, 266–267	Anhui Province
commercialization and, 36–38, 46, 51–52	famines of 1959–1961, 71–72, 80, 115–116
during Cultural Revolution, 236, 239–240,	peasant experiments of 1978–1979, 241
273, 274	Animal husbandry, 498
decline during "Big Push" development	Anshan, steel production in, 25, 45
strategy, 56–57	Anti-Rightist Campaign, 69, 71, 98
distribution of, 19–20, 23–29	Appleton, Simon, 188, 194, 195, 198, 199

Ash, Robert F., 504 link with Shanghai, 26 A-shares, 470-472 Marco Polo Bridge incident (1937), 47 Ashton, Basil, 83 modern information economy in, 3 Asian Development Bank, foreign debt owed on North China Plain, 23-25 reemployment centers (RECs) in, 186 to, 441–442 Asian financial crisis (1997–1998), 288–289, rural industrial development and, 280 307, 389, 421, 461 urbanization and, 128 Assets-management companies (AMC), urban residence permits (hukou) and, 124, 462-463 ASUStek, 417 water table under, 500 Autarky, 76 Beijing University, Founder program, 359 Autonomous regions of ethnic minorities, 22 Beirle, S., 491 Autonomy, in corporatization process, 315, Benjamin, Dwayne, 246-247 321-322 BenO, 417 Bermuda, investment in China, 413 Baby boom, 168, 173 Bian, Janjie, 181 Baby boom echo, 173-176 "Big Push" development strategy, 55-60, 65, Bahl, Roy, 434, 437, 438, 446 66, 69, 74, 96, 115, 273, 275 investment rate and, 56, 81-82, 143-144, Bai, Chong-En, 321, 322 Balance of payments, 421-422, 443 147-148, 156 Balance of trade, 421 technology in, 264 Banister, Judith, 82, 118, 165–166, 171, 177, Bird, Richard M., 436 Birth control and family planning, 132, 161, 178, 222, 227 Banking system, 454-467. See also Financial 167 - 172abortion, 169, 172 system Asian financial crisis (1997–1998) and, baby boom echo and, 173-176 288–289, 307, 389, 421, 461 baby boomers and, 168, 173 later-longer-fewer (wan-xi-shao) policy, assets of banking institutions, 455 contemporary reform program, 466-467 in control-based system of corporate One-Child Policy, 168-172, 185 governance, 319-322 in rural areas, 234, 238 "flow" problem of, 461, 464–466 sterilization, 169 foreign banks in China, 466-467, 480-481 Birth rates, demographic transition and, foreign direct investment and, 420-422 162-164, 166 in market transition, 103-104, 278-279, 451 Blended firms, 324 monetary policy and, 444-445 Blomstrom, Magnus, 147 monobank system, 61, 454-455, 458, 461 BOC (Bank of China), 455, 463, 464, nonperforming loans and, 306-308, 460-467 466-467 reform of 1980s, 454-455 Bockstette, V., 8 state-owned enterprises and, 453 Bohai Gulf, petroleum reserves in, 342-343 "stock" problem of, 461, 462-464 Boisvert, R. N., 287, 293 township and village enterprises (TVEs) Bonded Zones, 410 and, 278–279, 288–289 Bond market, 454, 477–478 types of institutions in, 454-460 Bongaarts, J., 170, 177 weakness of, 460-467 Bonuses Bank of America, 466 elimination of, 69 Bank of China (BOC), 455, 463, 464, 466-467 reinstatement of, 73 Bank of Communications, 456, 467 Bowles, Paul, 288, 293 Bank of Shanghai, 457 Boxer Rebellion (1890s), 41 Barefoot doctors, in rural areas, 244-245 Boyreau-Debray, Genevieve, 464 Barta, Patrick, 347 Bramall, Chris, 211-212, 227 Brandt, Loren, 33, 36, 246-247 Bataan, Philippines, 408 Batam Island, Indonesia, 408 Brean, Donald J. S., 446 Becker, Jasper, 83 Brigades. See Commune and brigade Beijing enterprises allied occupation of, 41 British Virgin Islands, investment in China, foreign direct investment and, 405 413, 414 high-technology district of, 359 Brooks, Ray, 206

B-shares, 470–471	China Economic Review, 13
Budget deficits, 430–432, 441–442	China Human Development Reports, 224–225
Burnett, Kimberley, 499	China Journal, 13
	China Merchants, 415–416
Buy it model of R&D, 357	
Byrd, William, 93, 293, 312	China National Petroleum Company (CNPC)
C.: F 12 92 199	302, 472–473
Cai, Fang, 13, 83, 188	China Quarterly, 13
Cai, Yong, 172, 178	China Resources, 415–416
Cai, Yongshun, 121	China Securities Regulatory Commission
Canada, investment in China, 413–414	(CSRC), 104, 473–474
Canals, in commercialization process, 26, 36	China Telecom, 343–344
Cao, Jinqing, 248	China United Telecom (Unicom),
Cao, Shi Larry, 429, 446	343–344
Capital account, 420–422	Chinese Academy of Agricultural Sciences
Capital adequacy ratio (CAR), 461, 462	(CAAS), 261, 268
Capitalists, in Communist China, 65	Chinese Academy of Sciences (CAS), 353,
Capital markets, 451, 454	354, 356, 359
bond, 454, 477–478	Chinese Communist Party (CCP). See also
institutional investors and, 319, 340, 475–476,	Command economy; Socialist era
480	(1949–1978)
stock, 467–477	banking system reforms and, 460–464
Caprio, Gerald, Jr., 481	civil war with Nationalist (Guomindang)
Cayman Islands, investment in China, 413	Party, 47, 49, 50, 51
CCB (China Construction Bank), 455–456,	economic impact of political power, 10
463–465, 466–467	Eighth Congress (1956), 68
Central bank. See People's Bank of China	Fifteenth Congress (1997), 105, 301–302
Chains of agency relationships, 319	Fourteenth Congress (1992), 100
Chan, Anita, 248	income differential for membership in, 192,
Chan, Thomas E. K. Y., 408	199
Chanda, A., 8	in market transition, 86–87, 99–100,
Chang, Chun, 287, 293	312–313
Chang, Eric C., 322	monitoring managerial performance of,
Chang, Gene Hsin, 83	322
Chang, John K., 43	monopoly over press, 142
Chang, Jung, 53	nomenklatura system, 61, 317
Changsha, in "four furnaces," 20	public-service units (PSUs) and, 117–118,
Chaozhou (Teochiu) people, 28	184, 189
Che, Jiahua, 287, 293	regulatory reforms and, 316-318
Chen, Duanjie, 436	seizure of NRC-developed industries, 51
Chen, E. K. Y., 408	Chinese Development Research Center,
Chen, Hongyi, 287	133–134
Chen, Shaohua, 211–214, 216–217, 220–221,	Chongqing Municipality, 26–27
227	in "four furnaces," 20
Chen, Yun, 79, 91	Nationalist government capital in, 49
Cheng, Shengkui, 500	Sichuan Province and, 22, 26
Cheng, Tiejun, 116	Chu, David K. Y., 408
Chengdu, in Upper Yangtze macroregion,	Chui, Michael, 481
27	Circulating shares, 469–471
	Citibank, 467
Chi, Ch'ao-ting, 31 Chin, Steve, 408	
	City banks 457, 450
China: An International Journal, 13	City banks, 457, 459
China Bank Regulatory Commission	Clarks Danield 314 315
(CBRC), 104, 460	Clarke, Donald, 314, 315
China Circle economies, 401, 402, 409, 410,	Cliff, Roger, 350
414–418	Climate of China, 20–22
China Construction Bank (CCB), 455–456,	Closer Economic Partnership, 415
463–465, 466–467	CNPC (China National Petroleum Company)
China Development Bank, 457	302. 472–473

Coal	Contracts
pollution and, 336, 489-490	in commercialization process, 36, 37
production and use of, 3, 29, 45, 329–330,	employment, in banking system, 465-466
334–336, 338–339, 341, 342, 496, 497	between farmers and collectives, 120-122,
Coale, A. J., 171, 177	241, 244, 246–248
Coastal Development Strategy, 393	in foreign direct investment, 411-413
Collender, Robert, 458	in market transition, 89–91, 94, 183
Command economy, 55, 59–62. See also	Control-based corporate governance,
Chinese Communist Party (CCP); Socialist	319–322
era (1949–1978)	Cooperative arrangements. See also
characteristics of, 59–61, 91–92	Agricultural collectives; Commune and
"double air lock" system of trade and,	brigade enterprises; Township and village
380–381	enterprises (TVEs); Urban collectives
dual-track market transition, 90–98	farmers' co-ops, 67–68, 181, 235
employment in publicly owned undertakings,	for health care, 243–246
181–184	joint-stock cooperatives, 291, 323
energy inefficiency and, 337–338	in market transition, 94–95
establishment of Chinese, 59–60	rural credit cooperatives (RCCs), 237–238,
financial system in, 451 international trade reform following,	279, 451, 458, 467 urban credit cooperatives, 457, 459
380–396	Copper, 29
investment rate during "Big Push"	Corn (maize), 36, 262, 265
development strategy, 56, 81–82, 143–144,	Corporate governance, 308–323. See also
147–148, 156	Corporations; Ownership; Privatization
job mobility limitations in, 117,	Company Law (1994) and, 104, 301–302,
181–183	314–319
problems of, 87	control-based, 319–322
rural industries in, 76, 273–274	market-based, 319, 321-323
savings in, 428–430	nature of, 299
Soviet, 59–62, 66, 181–184	regulatory reforms in, 104, 302-303,
urban–rural divide and, 113	316–319
Commercial banks (Big Four), 454–456,	technology policy and, 367
462–464	in transformation in state sector, 104,
Commercialization	308–323
institutional support for, 36–37	types of, 319–323
in traditional economy, 36–38, 46,	Corporations. See also Corporate governance;
51–52	Ownership; Privatization
Commune and brigade enterprises. See also	Company Law (1994) and, 104, 301–302,
Township and village enterprises (TVEs)	314–319
employment in, 121, 181 establishment of, 235, 273	corporatization process and, 309–311, 315, 321–325
health care and, 244	corruption in, 322–323
Communes, 69, 235, 272–273	foreign-trade (FTCs), 383–388, 391–392
Communist Party. See Chinese Communist	joint-stock corporations, 189–190, 291, 299,
Party (CCP)	302–304, 314–319, 343–344, 469
Company Law (1994), 104, 301–302,	limited-liability corporations, 104, 106–107,
314–319	189–190, 298–304, 314, 469
objectives and principles of, 314–315	managerial abuse of, 322–323
oversight agencies and, 316–319	new corporate forms in, 104, 106–107,
slow implementation of, 316	189–190, 298–304, 314–319
Competitive markets, in commercialization	reforms in market transition, 104
process, 37	Corruption Perception Index, 323
Connelly, Rachel, 200	Cotton
Construction programs	genetically modified, 267–268
rural, 237	importing of, 44
Third Front (1964–1966), 73–74	industrial revolution and, 38, 46
Continental system of corporate governance,	on North China Plain, 25
319–322	production of, 240, 242–243, 265

Credit clubs, 478	Dependency rates
Credit institutions. See also Banking system	economic growth and, 7, 132, 161,
in market transition, 279	172–176
rural credit cooperatives (RCCs), 237-238,	social security and, 203-206
279, 451, 458, 467	Desertification, 498–499
urban credit cooperatives, 457, 459	Dietary changes, 240, 266–267
Cultural Revolution (1967–1969), 62, 78, 82,	Ding, X. L., 323
98	Direct finance, 306
aftermath of, 75, 88	Disarticulation, in market transition,
agricultural organization during, 236,	95–96
239–240, 273, 274	Dittus, Peter, 481
ban on rural-to-urban migration,	Djankov, Simeon, 326
113–114	Domestic trust companies, 459
educational attainment and, 196	Dong, Xiao-yuan, 288, 293
international trade and, 380	Dongguan, 128, 417
nature of, 74–75	Draft animals, 263–264
problems of, 4, 5, 261–262	Drought, 39
"sent-down" youth and, 127–128, 185,	Dualistic society. See Urban-rural divide
280	Duckett, Jane, 206
technology policy and, 353	Due diligence, 466
Currency. See Foreign exchange	Dwarf varieties, 262
Customary institutions, in commercialization	
process, 36	East China Sea, petroleum reserves in,
Czech Republic, transitional economy of,	342–343
107	Easterly, William, 147
Dama 26 27 501 502	Eastman, Lloyd, 34
Dams, 26–27, 501–502	Economic and technological development
Danwei (work units), 114, 116–118 benefits, list of, 117	zones (ETDZs), 409–411 Economic continuity, 34
job mobility limitations and, 117	Economic history of China
market transition, 122–124, 299–300, 309,	1127–1911, 34–43
311–314	1912–1937, 43–47
social security and, 122–123, 186, 202–206,	1937–1949, 47–49
314	1949–1978 socialist era, 50–51, 55–84
Daqing, oil field in, 339-340, 380	1978–1992, 85–100
Dazhai system, 236	1988–1989 Tienanmen interlude, 11, 98–100
Death rates	390, 403, 443
demographic transition and, 162–164,	1993-present, 100-107
165	post–1978 market transition, 51–53,
dependency rates and, 173, 174	85–110
infant mortality, 163, 222–223	Economy, E., 493
de Brauw, Alan, 191, 200, 201, 206	Edmonds, Richard Louis, 504
Dell, 417–418	Education. See also Human capital
Demographic crisis, 177, 480	agricultural collectives and, 238
Demographic dividend, of labor-force growth,	birth rate decline and, 163–164
7, 173–174, 181	Chinese studying abroad, 46–47, 363
Demographic transition, 161–170	knowledge premium and, 193
birth rates and, 162–164, 166	out-migration and, 200–201
in China, 164–167	as quality of life indicator, 223
death rates and, 162–164, 165	returns to, 192–198
fertility rates and, 162–164, 166–167	technology policy and, 361–363
Deng, Xiaoping	urban residence permits (hukou) and,
economic policy and, 77, 79, 91, 241	125 86 3 Program 358 350
Southern Tour (1992), 99–100, 102, 403	86-3 Program, 358–359 Electricity 329–330, 333, 334, 336, 341
Special Economic Zones (SEZs) and, 52,	Electricity, 329–330, 333, 334, 336, 341, 346–347, 497, 501–502
406, 409	Electronics industry, 394–396, 417
transition process and, 108	Eleventh Central Committee, 79

El.: 16 1 20 20	
Elvin, Mark, 38–39	international trade and promotion of,
Employment. See also Labor force of China;	385–386
Unemployment	petroleum industry, 340–343
in commune and brigade enterprises, 121,	External sector, reforms in market transition,
181	104–105
creation of, 81	Extrabudgetary funds (EBFs), 438-439
informal sector, 184, 187, 189-191, 205,	Extraterritoriality, Treaty Ports and, 42
303–304	, y,y
labor mobility and, 117, 181–184	Factory production
ownership and, 181–184	growth in, 1912–1936, 43–44
in state-owned enterprises, 105–107	of textiles, 44, 46
in township and village enterprises (TVEs),	Fairbank, John King, 27, 31
285–286, 288, 291	Family size
underemployment and, 185	birth control and family planning, 132, 161,
Enclave industrialization, 44, 58	167–172
Energy	urban-rural divide in, 167, 169–172
diversification of, 341–343	Famine, 39
energy efficiency of economy, 336–338	Great Leap Forward (1959–1961), 4, 71–72,
energy-intensive economy, 496–497	80, 82, 115–116, 161, 164–165, 168, 181, 238,
forms of, 3, 333–336, 338–341	240, 252–253, 264
growth in consumption, 9	Feeney, Griffith, 168
structural change in, 329–330, 332–343	Fei, Hsiao-t'ung, 272
Enterprise income tax, 411	Feigenbaum, Evan, 356
Entrepreneurial society, 8, 51–52. See also	Fen Valley, 28
Small-scale enterprises	Fertility rate. See Total fertility rate (TFR)
	Fertilizer
rural industrialization and, 281, 283	
technology policy and, 360–361	green revolution and, 258, 259, 260–261,
Environmental issues, 487–504	265–266
air pollution, 336, 490–491, 493–494	in traditional agriculture, 35–36
environmental Kuznets curve, 487–495, 496,	water pollution from, 491–493
502–503	Feuerwerker, Albert, 40
groundwater levels and pollution, 266,	Financial journalism, 321
500–502	Financial reforms. See Banking system
national environmental policy, 488, 493–495	Financial system, 449–483. See also Banking
pollution, 488, 489–497	system
salinization of water, 260	bond market, 454, 477-478
sustainability of resources, 488-489,	capital markets, 451, 454
495–502	"deep but narrow," 449–454, 479
EPZs (export-processing zones), 382, 386–388,	industrial finance in market transition,
391–396, 407	304–308
Equity joint ventures, in foreign direct	institutional investors in, 319, 450, 475–476,
investment, 412–413	480
Ernst, Dieter, 370	other markets, 478
Esherick, Joseph, 34	in planned economy, 451
ETDZs (economic and technical	reforms in market transition, 103–104, 108,
development zones), 409–410, 411	304–308, 451–454
European Space Agency, 491	stock market, 302, 321–322, 454, 467–477
European Union (EU)	Findlay, Christopher, 275–276
Chinese students in, 363	First Five-Year Plan (1953–1957), 65–67, 73,
investment in China, 413–414	379
system of corporate governance, 319–322	Fiscal system and policy, 427–428, 430–442
Export-Import Bank, 367, 457	budget deficits, 430-432, 441-442
Export-processing (EP) regime, 382, 386–388,	contemporary status of, 436-441
391–396, 407	intergovernmental fiscal relations, 436–437
Export-processing zones (EPZs), 382,	local government expenditures/GDP, 437
407–409	reform of 1994, 431–436
Exports	reforms in market transition, 103
growth in comparative perspective, 142–143	reversing fiscal erosion, 433

Fischer, William A., 372	Fung, K. C. H., 423
Fisher-Vanden, Karen, 364	Future challenges, 10–12
Fishman, Raymond, 399	agricultural, 266–267
"Five Small Industries," 76, 273–274	environmental. See Environmental issues
Footwear industry, 417	of financial system, 479–481
Foreign direct investment (FDI), 144–145,	of market transition, 107–110
148, 401–424. See also Foreign-invested	or marinet transmon, 107 110
enterprises (FIEs); Investment rate; Special	Gale, Fred, 269, 458
economic zones (SEZs)	Gang of Four, 77
by China Circle economies, 401, 402, 409,	Gansu Province
410, 414–418	cooperative health care in, 246
contemporary investment regime, 402,	forests and grasslands of, 499
410–413	in northern plateau region, 28, 30
control over production process with,	poverty in, 30, 225
405–406	GATT (General Agreement on Trade and
FDI/GDP ratio, 57–58, 404–405	Tariffs), 389–390
importance of, 402–406	Gaulier, Guillaume, 399, 423
modes of capital inflow, 420–422	GDP. See Gross domestic product (GDP);
Northeast Asian pattern of, 404–405	Gross domestic product (GDP) per capita
origins of, 40–43	GDP deflator, change in data collection
sectoral composition of, 419–420	(1998) and, 140–142
sources of, 401–403, 413–418	Gender
Southeast Asian pattern of, 405	education and, 198
technology policy and, 352, 360, 405–406	labor force participation and, 131, 132,
unique qualities of Chinese, 402, 413–416	163–164, 199
World Trade Organization membership	life expectancy at birth and, 222
impact on, 402, 419–422	relative wages and, 199
Foreign exchange	rural-to-urban migration and, 131
currency devaluation of 1980s, 9, 383	sex ratio of population, 171–172
foreign direct investment and, 410	General Agreement on Trade and Tariffs
international trade and, 380, 383, 388–389	(GATT), 389–390
secondary "swap" market for, 388-389	General Electric, 318
Foreign-funded banks, 458–459	Genetically modified organisms (GMOs),
Foreign-invested enterprises (FIEs). See also	267–268
Foreign direct investment (FDI)	Geography of China, 17–32
growth of, 300	agricultural regions, 19–20, 23–29
international trade and, 385–388, 396,	climate, 20–22
405–406	landforms, 17, 18–20
Foreign-trade corporations (FTCs), 383–387	macroregions, 23–29, 30
demonopolization of, 383–384	mineral resources, 28–29
export-processing system, 386–388,	provinces and regions, 22–28
391–392	seacoast, 17–18
Formal organizations, in commercialization	water, 20–22
process, 36	Gibson, John, 211–212
Four Tigers, 396	
	Gilboy, George, 369, 372
Free ports, 413	Giles, John, 188, 201
FTCs (foreign-trade corporations), 383–388,	Gillis, Malcolm, 158
391–392 Eniion (Minnon) noonlo 28	Gini coefficient, in measuring income
Fujian (Minnan) people, 28	inequality, 217–221
Fujian Province	Globalization. See also Foreign direct
foreign direct investment in, 402, 405, 409	investment (FDI); International trade;
industrial labor force of, 418	World Trade Organization (WTO)
international trade and, 381–383, 396–397	agriculture and, 268–269
liquefied natural gas in, 342	in commercialization process, 38
special economic zones in. See Special	impact of, 8
economic zones (SEZs)	in market transition, 7, 100, 104–105, 110
tea industry in, 38	structural change and, 156–157, 392–396
Fung, Ben S. C., 463	technology policy and, 368-371

Global production networks (GPNs), 398 total stock market capitalization/GDP, 468, Global warming, 495–497 Godson, 368 total trade/GDP, 377-378, 391-393 Goldman, Merle, 31 Gross domestic product (GDP) per capita. Government sector. See also Municipal See also Structural change government; Privatization; State-owned comparative levels of, 225-226 enterprises (SOEs); Township and village growth in, 3, 9, 139–143 enterprises (TVEs) purchasing-power-parity (PPP) and, 150 decline in budgetary revenues, 101, 102 Growth of China, 139-148. See also Gross incremental managerial reforms in, 95 domestic product (GDP); Gross domestic investment rate during "Big Push" product (GDP) per capita; Population of development strategy, 143-144, 147-148 China; Structural change municipal government budgets and, 118 1949-1978, 140 reduction in size of, 96-97 1978-2005, 6-8, 9, 140-143 role in birth control and family planning, in comparative perspective, 142–143 132, 161, 167-172 instability of, 143, 144 Goyal, Rajan, 437 investment and, 143-148 "Grain First" policy, 239-241, 252-254 Gu, Yuefang, 357 Grain rationing, 81, 115, 116 Guangdong International Trust and Grand Canal Investment Company (GITIC), 459 in commercialization process, 36 Guangdong Province development of, 26 cooperative health care in, 245-246 Granick, David, 181-183 foreign direct investment and, 402, 405, 406, Great Britain 409, 414 Anglo-American system of corporate Hainan Island and, 22, 396, 409, 410 governance, 319, 321–323 industrial labor force of, 418 Opium War (1939) and, 40–41, 50 international trade and, 381-383, 386-388, Treaty of Nanking (1842), 40–41 396-397 Great Leap Forward (1958–1960), 69–72, 75, liquefied natural gas in, 342 76, 78 modern information economy in, 3 agricultural organization during, 70-71, 235, Pearl River Delta and, 27-28 272-273 rural-to-urban migration and, 130 famines of 1959–1961, 4, 71–72, 80, 82, SARS panic and, 245 115-116, 161, 164-165, 168, 181, 238, 240, special economic zones in. See Special 252-253, 264 economic zones (SEZs) innovative elements in, 69–70 urbanization and, 128 international trade and, 379 urban residence permits (hukou) and, 125 investment rate during, 56 Guangzhou (Canton), traditional agriculture problems of, 4, 5, 261, 443 and, 39-40 social mobility and, 115, 127, 183 Guizhou Province famines of 1959-1961, 71-72 urbanization during, 127 Great Wall/IBM, 417 One-Child Policy and, 170-171 Green, Stephen, 316, 326, 481 poverty in, 30, 224-225 Greenhalgh, S., 170, 177 Third Front (1964–1966), 74 Green revolution, 89-90, 252-253, 257 Gunter, Frank R., 423 fertilizers and, 258–261, 265–266 high-yield varieties (HYVs) in, 258-263, Hahn, Donghoon, 322 265-266 Hai'er, 325 irrigation and, 258-260, 265-266 Hainan Island, 22, 396, 409, 410 power machinery and, 256, 260, 264-265 Hangzhou Bay, 491 Gross domestic product (GDP). See also Hanmer, Lucia, 227 Structural change Hard budget constraint, 309 in 2005, 3 Hare, Denise, 200, 201 education outlays in, 197-198 Harrod-Domar model of growth, 146 growth in, 42–43, 45–46, 139–144, 274–275 Havrylshyn, Oleh, 110 investment as percent of, 57–58, 404–405 Hayami, Yujiro, 256, 269 purchasing-power-parity (PPP) and, 150 Health care R&D/GDP ratio and, 352–356 demographic transition in, 165–166

in market transition, 122–123	comparative levels of, 225–226
in rural areas, 243–246	growth in, 210–212
SARS panic, 245	income inequality and, 217–221,
second health revolution and, 223	225–226
social safety net and, 122, 188, 203	Household savings, 428–430. See also Savings
in urban areas, 246	rate
urban residence permits (hukou) and, 125	Housing
Health insurance system, 6, 203, 205–206,	household registration system, 116, 124–126,
244	200
Hebei Province	urban property rights and, 118–119, 123–124,
cooperative health care in, 246	314, 465
groundwater level decline in, 266	urban residence permits (hukou), 116–117,
Heilongjiang Province	124–129, 188
oil field in Daqing, 339–340, 380	Howie, Fraser J. T., 481
reemployment centers (RECs) in,	HSBC, 467
188–189	H-shares, 470–471
Henan Province, population of, 22	Hu, Albert, 364
High-yield varieties (HYVs), 258–263, 265–266	Hu, Jiayuan, 364 Hu, Jintoo, 108, 110, 366
	Hu, Jintao, 108–110, 366
Hill, Kenneth, 82, 165–166, 222, 227 Himalayas, 17, 18	Hu, Yaobang, 98 Hua, Guofeng, 78
History of China. See Economic history of	Huai River, 257, 493
China	Huang, Jikun, 211–212, 262–263, 268, 269
Ho, Samuel P. S., 288, 293	Huang, Lijun, 323
Hofman, Bert, 431	Huang, Sha'an, 323
Holz, Carsten A., 158, 306	Huawei, 325, 358, 364
Hong Kong	Hubei Province
accelerated growth after 1950s, 34, 52,	in Middle Yangtze macroregion, 26
57–59	new household registration system in,
British rule and, 41	125–126
as China Circle economy, 416–418	Huijin Corporation, 463, 466
economic ties with China, 8, 27, 379	Human capital, 7, 192–202. See also
as Four Tiger economy, 396	Education; Labor force of China
international trade and, 381–382, 387	distribution of, 219
investment in China, 401, 402, 409, 410,	nature of, 82
413–418	structural change and accumulation of,
labor force of, 418	148–149
Pearl River Delta and, 27–28	technology policy and, 350, 361–363
restructuring of, 418	work experience and, 198–199
rural industrialization and, 284	Human Development Index (HDI),
as Special Administrative Region (SAR),	223–225 Hunan Bravings in Middle Vanatze
414–415	Hunan Province, in Middle Yangtze
as special autonomous region (SAR), 22 stock exchange, 470–471	macroregion, 26 Hundred Flowers (1956–1957), 67–69, 80
technology of, 368	Hybrid ownership forms, 323–325
as Treaty Port, 41	Hybrid rice varieties, 262–263
Hon Hai, 417	Hydropower, 336
Hoshi, Takeo, 481	Hyperinflation, post–World War II, 49, 50, 64,
Household-based economy	443
in commercialization process, 37–38, 55	
growth in, 184	IBM, 360, 417
as legacy for market economy, 51–53, 89–92,	ICBC (Industrial and Commercial Bank of
272	China), 455–456, 461, 464
post-World War II, 66-67, 183	Iizaka, H., 423
Household income	Imports
accounting for all sources of, 220-221	petroleum industry, 340–343
in agricultural collective system,	in trade liberalization, 133-134, 384-386,
234–236	394–396

Import substitution industrialization (ISI),	rural. See Township and village enterprises
381, 385–386, 408	(TVEs)
Incentives	secondary sector and, 149-150
in banking system, 465–466	second phase of reform, 301–304, 313–314
elimination of, 69	telecommunications and, 343–345
in international trade, 384	Third Front (1964–1966), 73–74, 76, 77
in market transition, 310–313, 350, 363–371	transportation systems and, 336, 346–347
reinstatement of, 73	Treaty Port, 44
in technology policy, 350, 363–371	tripod structure of, 300–301
India	Infant mortality
comparison with China (1952), 50	demographic transition and, 163
economic development patterns of, 156–157	as quality of life indicator, 222–223
educational attainment in, 196–197	Inflation
globalization process and, 156–157	1988–1989, 99
income distribution in, 218	change in data collection (1998) and,
Indirect finance, 306	140–142
Indonesia	macroeconomic cycles and, 442-444
Asian financial crisis (1998–1999) and, 461	post–World War II hyperinflation, 49, 50, 64,
Batam Island export processing zone, 408	443
foreign direct investment and, 405, 408	soft landing from, 443–444
income distribution in, 218	taming after 1996, 105
Induced-innovation hypothesis, 255–258	Informal sector
Industrial and Commercial Bank of China	employment in, 184, 187, 189–191, 205,
(ICBC), 455–456, 461, 464	303–304
Industrial deepening, 330	financial markets, 478
Industrialization of China, 297–328. See also	Information technology (IT) hardware, 358,
Foreign direct investment (FDI); Human	369–371, 417–418
capital; International trade; Manufacturing	Infrastructure investment, 345–347
in China; Structural change; Technology	Initial public offerings (IPOs), 469, 470,
policy; Township and village enterprises	473–474
(TVEs)	Inner Mongolia, 18
1912–1937, 43–47	coal reserves in, 342
"Big Push" development strategy and, 55–60,	desertification and, 498
65, 66, 69, 74, 81–82, 96, 115, 143–144, 264,	in northern plateau region, 28, 30
273, 275	Inner Mongolian Plateau, 18
conversion to market economy, 297–328	Input-output tables, 58, 61
enclave, 44, 58	Inside information, 320
energy and, 333–343	Insider control, 473–474
energy efficiency and, 337	Insider privatization, 106, 289–290, 324
environmental issues in, 487–504	Institute for Computer Technology, 359
first phase of reform, 299–301, 310–313	Institutional investors, 319, 450, 475–476,
"Five Small Industries" of rural economy, 76,	480
273–274  Creat Leap Forward (1058, 1060) and	Insurance companies, 319, 450, 475–476, 480
Great Leap Forward (1958–1960) and,	Integrated circuit industry, 358, 369–370, 371
70–72	Intel, 417–418 Intellectual property rights (IDD) 251
growth in, 9	Intellectual property rights (IPR), 351,
import substitution (ISI), 381, 385–386, 408	364–365, 371, 411 International Economic Databank (IEDB),
industrial policy and 365, 366	
industrial policy and, 365–366	393 International Manatary Fund (IMF) 431
infrastructure investment and, 345–347	International Monetary Fund (IMF), 431 International Rice Research Institute, 262
investment in, 81–82 Japan and, 25–26, 44–45, 47–48, 50–51, 65	International trade, 377–400. See also World
"makeup" style of, 330–331	Trade Organization (WTO)
Manchurian, 25–26, 44–45, 47–48, 50–51, 65	background on, 379–380
under Natural Resource Commission	composition of Chinese, 395
(NRC), 49, 51, 65	export growth in, 393–394
process of, 5–6	export growth in, 393–394 export-processing system, 382, 386–388,
real industrial growth rates, 331–332	391–396, 407
icai muusiiai giowiii latos, 331–332	571 -570, TO /

foreign-invested enterprises (FIEs) and,	Jiangsu Province
385–388, 396, 405–406	foreign direct investment and, 405
import growth in, 384–386, 394–396	insider privatization in, 290
origins of, 40–43	rural industry in, 279, 282–283, 290, 292
reform and opening (gaige kaifang), 378,	rural-to-urban migration and, 130–131
380–396	Jiangxi Province
regional composition of trade within China and, 396–397	in Middle Yangtze macroregion, 26
structural change and, 156–157, 392–396	One-Child Policy and, 170–171 Jin, Hehui, 287
total trade/GDP ratio, 377–378, 391–392,	Jin, Renqing, 246
393	Johnson, D. Gale, 177, 178
Investment rate, 143–148. See also Foreign	Johnson, Ian, 13
direct investment (FDI)	Johnston, Louis, 14
"Big Push" development strategy and, 56,	Joint-stock commercial banks (JSCBs),
81–82, 143–144, 147–148, 156	456–457, 459, 462, 466–467
cycles of political/economic mobilization,	Joint-stock cooperatives, township and village
62–79	enterprise conversion to, 291, 323
dependency rates and, 174	Joint-stock corporations (JSCs), 189–190, 299
foreign direct investment and, 145, 148, 405	469
in market transition, 96–97	state-owned enterprise conversion to,
by specific time period, 63–64	302–304, 314–319, 343–344
total capital formation and, 144–145	Joint ventures
IPR (intellectual property rights), 351,	in foreign direct investment, 411–413
364–365, 371, 411 Iron in Monchyria 45	managerial discretion concerning, 322–323 in market transition, 94–95
Iron, in Manchuria, 45 "Iron law of development" (Rozelle), 149	technology policy and, 357–358
Irrigation (Rozene), 149	Journalism
dam projects, 26–27, 501–502	Communist Party party monopoly over
destruction of infrastructure for, 39, 50	press, 142
green revolution and, 258–260, 265–266	financial, growth of, 321
investment in, 237	Journal of Comparative Economics, 13
in traditional agriculture, 35-36	Junggar basin, 18
water sources for, 500	
ITT, 357–358	Kallgren, Joyce K., 53
	Kanbur, Ravi, 245, 246
Japan	Kaohsiung Free Trade Zone, Taiwan, 407, 408
agricultural production in, 256, 257	Keiretsu, 320
Chinese students in, 47, 363	Khan, Azizur, 220–221
defeat in World War II, 48, 65	Khrushchev, Nikita, 67, 71
demographic transition in, 164	Khundrakpam, J. K., 437
disputes over mineral rights on continental shelf, 343	King, Frank H., 34–35 King, Robert G., 450
economic transition of, 11–12	Kinugasa, Tomoko, 173–174
foreign direct investment and, 145, 404–405	Kirby, William C., 49
growth in comparative perspective, 143	Knight, John, 135
invasion of 1937, 43, 47–48	Knowledge premium, 193
investment in China, 413–414	Korea
investment rate of, 144	Asian financial crisis (1997–1998) and, 307,
Liaodong Peninsula seized from Russia, 47	461
Manchurian industrialization and, 25–26,	economic growth of, 59, 143, 147
44–45, 47–48, 50–51, 65	food production for Japan, 48
seizure of Taiwan, 41–42	foreign direct investment and, 145, 404–405
in Shanghai, 48, 49	as Four Tiger economy, 396
in Sino-Japanese War (1895), 41–42	growth in comparative perspective, 143
system of corporate governance, 319–322	income distribution in, 218
technology of, 351, 352, 363	invasion of South Korea by North Korea,
Jefferson, Gary, 364	64–65 investment in China, 414
Jiang, Xiaojuan, 371, 418	myestinent in Cinna, 414

Korea (cont.)	Levine, Ross, 147, 450, 481
investment rate of, 144–145	Li, Guo, 120
technology of, 351, 352, 363, 368	Li, Hongbin, 288, 292
Kornai, Janos, 309	Li, Peng, 493
Kumar, Dharma, 53	Li, Rongrong, 318
Kuznets, Simon, 219	Li, Ruluan, 31
Kynge, James, 441	Li, Xiannian, 79
Kyoto Treaty, 496	Li, Zhou, 13, 83
	Lian, Yuming, 326
Labor force of China, 179-208. See also	Liang, Zai, 129, 135
Employment; Human capital; Rural-to-	Lianxiang, 323–324, 359–360
urban migration; Unemployment	Liaodong Peninsula, seized from Russia by
composition of, 180–181	Japan, 47
contemporary function of labor markets,	Liaoning Province, foreign direct investment
192–202	and, 414
demographic dividend and growth in, 7,	Life expectancy
173–174, 181	growth in, 9
gender of workers and, 131, 132, 163-164, 199	increase in, 82
industrial, 418	as quality of life indicator, 222
informal sector, 184, 187, 189–191, 205,	Limited-liability corporations (LLCs), 104,
303-304	106–107, 189–190, 298–304, 314, 469
job mobility limitations and, 117, 181–183	Lin, Biao, 77
lack of labor market, 179, 181-184	Lin, Justin Yifu, 13, 83, 263, 269
managerial labor markets, 289	Lin, Qingsong, 293
restructuring of state-owned enterprises and,	Lin, Yi-min, 301
99, 105–107, 151–153, 179–180, 183–189,	Linden, Greg, 368
298–304, 314–319, 468–469	Lipsey, R., 147
retirement of workers, 175-176, 187-189,	Liquefied natural gas (LNG), 342
480	Literacy. See also Education
rural labor markets, 191-192, 266	growth in, 9, 46–47, 51, 82
social security and, 122-123, 186, 202-206	as quality of life indicator, 223
in traditional agriculture, 35–36, 179	Liu, Changming, 21–22, 504
Laid-off workers (xiagang), 185–189, 195	Liu, Liu, 423
Lall, Sanjaya, 399	Liu, Minquan, 423
Land degradation, 497–499	Liu, Ts'ui-jung, 39
Land distribution, in traditional agriculture,	Liu, Xielin, 350, 370–372
39–40	Liushi Township, industrial clusters and, 293
Land improvement, 257	Living standards, 209–228. See also Human
Landlessness, lack of, 120, 131	capital; Urban–rural divide
Land reforms	agricultural, 240
1950–1952, 65	comparative, 225–226
1978–1984, 120, 240–246	household income growth, 210–212
Lang, Larry, 326	income inequality and, 217–221, 225–226
Lardy, Nicholas R., 83, 239, 307, 399, 460–461,	physical quality of life indicators (PQLI),
481	221–225
Large-scale integrated (LSI) chips, 358	poverty and, 212–217, 225–226
Lau, Lawrence J., 99, 110, 423	restrictions on mobility and, 132–134
Laveley, William, 172, 178	Local government. See Municipal government
Leading Group for Poverty Reduction, 215	Lodging problem, 262
Lead pollution, 490–491, 494	Loess Plateau, 18
Leap Outward (1978), 77–79, 89	Lohmar, Bryan, 266, 500
Lee, Joseph, 423	Lower Yangtze macroregion
Lee, Keun, 322, 357–358	commercialization process in, 36
Leeming, F., 31	described, 25
Legal institutions, in commercialization	economic primacy of, 51–52
process, 36	international trade and, 396–397
Lemoine, Françoise, 399, 423	link with North China Plain, 26
Lenovo Computer, 323–325, 359–360, 371	rural-to-urban migration and, 130–131

Taiping Rebellion and, 40, 41 Marco Polo Bridge incident (1937), 47 traditional agriculture in, 35-36 Maritime China, 27–28, 52. See also Special Lu, Ding, 365 economic zones (SEZs) Lu, Mai, 446 Market-based corporate governance, 319, Lü, Xiaobo, 117 321-323 Luxury goods Market fundamentalism, lack of experience disappearance of, 330 with, 7 tax on, 432-433 Market transition (post-1978), 85-111. See also Township and village enterprises Ma, Guonan, 463 (TVEs) Ma, Hengyun, 269 banking system in, 103-104, 278-279, 451 Ma, Hong, 128 "big bang" versus "gradualist" transition to, Ma, Zhongdong, 129, 135 7, 86–88, 183, 310, 325–326, 453 challenges of, 107–110 investment in China, 413 Chinese Communist Party in, 86–87, 99–100, Pearl River Delta and, 28 312-313 as special autonomous region (SAR), 22 corporate governance changes in, 299, Macroeconomic policy, 427–447 308-323 fiscal, 103, 427-428, 430-442 dual-track transition to, 5-6, 90-98 inflation and, 442-444 elements of transition to, 90-98 in market transition, 96-98, 102 evolution of rural and urban economic systems in, 122-124 monetary, 103-104, 427, 444-445, 451 savings trends and, 428-430 financial system reforms in, 103-104, 108, Macroregions of China, 23-29, 30 304-308, 451-454 Maddaloni, Angela, 481 first phase of transition, 1978–1992, 88–100, Maddison, Angus, 36, 42 299-301, 310-313 Madsen, Richard, 248 gross fixed capital formation during Maize (corn), 36, 262, 265 transition to, 147-148 Malaysia incentive system in, 310-313, 350, 363-371 foreign direct investment and, 405, 407, 408 industrial finance in, 304-308 investment rate of, 144-145 industrial ownership changes under, 298-304 Penang export-processing zone in, 407, 408 legacy of traditional economy for, 51-53, Management buyouts, 106, 289-290, 324 89-92, 272 Manchukuo, 47 manufacturing growth in, 329-333 Manchuria materials-allocation plan, 92, 94 industrialization of, 25–26, 44–45, 47–48, political business cycles and, 97-98 50-51, 65 second phase of transition, 1993-present, Japan and, 25–26, 44–45, 47–48, 50–51, 65 100-107, 301-304, 313-314 lack of agriculture in, 38 technology policy and, 355-356 Manufacturing in China. See also Martinez, Jorge, 440 Industrialization of China; Primary sector Marukawa, Tomoo, 365 basic capabilities for, 350 Mason, Andrew, 173-174 factory production levels, 43-44, 46 Material balance planning, 61, 101 Materials-allocation plan, 92, 94 foreign direct investment and, 419–420 international trade and, 385 McCall, Brian P., 287 McGregor, James, 13 post-1978 growth of, 329-333 regional growth patterns of, 333 McMillan, John, 107–108, 110, 263 Mao, Zedong Meat Anti-Rightist Campaign, 69, 71, 98 consumption of, 240 Cultural Revolution and, 74–75, 77, 435 production of, 242, 253, 266, 267 death of, 77-78 Medical care. See Health care economic policy and, 62-63, 67-69, 71-76, Meek, Paul, 464 79-80, 168, 234 Megginson, William L., 325 health care policy and, 244 Merchants' associations, 37 as obstacle to economic development, Middle Yangtze macroregion, 26 Militarization of economy (1970), 75–76 Maoist model/martial law (1969–1971), 75–76, Millet, 242 379-380 Mincer, Jacob, 193

Min	N. b. d
Mincerian return to education, 193	Nabeshima, Karou, 326
Mineral resources of China, 28-29. See also	Nanjing, in "four furnaces," 20
Coal; Petroleum industry	Nanjing City Commercial Bank, 457
Ming dynasty (1368–1644), traditional	Nanjing decade, 43, 261
agriculture and, 36	Naquin, Susan, 36
Ministry of Commerce, 415–416	National Agricultural Research Bureau, 40
Ministry of Finance, 317, 441, 463	National Bureau of Statistics (NBS), 13, 132
Ministry of Health, 245–246	accounting for all sources of income,
Ministry of Labor and Social Security, 186	220–221
Ministry of Post and Telecommunications	change in data collection (1998), 140–142, 186
(MPT), 343–345, 358	limitations of data, 140–142, 186, 211–212,
Ministry of Transportation, 415–416	303, 496
Mission-push model of R&D, 356	National Environmental Policy Agency
Mo, Rong, 188–189, 206	(NEPA), 488, 493
Mobile phone handset industry, 370–371	Nationalist (Guomindang) Party, 43
Modernization	capital in Chongqing, 49
demographic transition and, 163	civil war with Communists, 47, 49–51
villages and level of, 232	Natural Resource Commission (NRC), 49,
Modigliani, Franco, 429, 446	51, 65
Monetary policy. See also Banking system	post–World War II inflation and, 49
in market transition, 103–104, 427, 444–445,	National Trade Union, 125
451	Natural Resource Commission (NRC), 49, 51,
Money. See also Foreign exchange	65
in commercialization process, 36	Natural Sciences Foundation, 358–359
post-World War II inflation and, 49, 50, 64	Naughton, Barry, 13, 110, 326, 385, 393, 399
Moneylenders, 478	NBS (National Bureau of Statistics). See
Monoculture, 257	National Bureau of Statistics (NBS)
Monopoly banking system (monobank), 61,	Net-asset-price rule, 324–325
454–455, 458, 461	Netter, Jeffrey M., 325
Monsanto, 267–268	New corporate forms, 104, 106–107, 189–190,
	298–304, 314–319
Morsol beyond 470, 480	
Moral hazard, 479–480	New Democracy, 65
Morck, Randall, 473	New World crops, 36
Motorola, 417–418	Ng, F., 399
Motor vehicles	Nickum, James E., 501
pollution from, 490–491	Ningxia, in northern plateau region, 28
in villages, 232	Nixon, Richard M., 77
Mount Everest, 17	Nolan, P., 369
Moving upstream, 330	Nomenklatura system, 61, 317
Mu, Qing, 357–358	Nonbank financial institutions, 459
Multicropping, 257–258	Noncirculating shares, 469–471, 474–477
Multinational corporations (MNCs). See also	Nonperforming loans (NPLs), 306–308,
Foreign direct investment (FDI)	460–467
foreign banks in China, 466–467,	Nontariff barriers, international trade and,
480–481	384–385
	North China Plain
technology policy and, 357–358, 360, 365	described, 23–25
Municipal government	
budgets of, 118, 438–441	green revolution and, 260, 500, 501
control of factories, 302	link with Lower Yangtze, 26, 36
inadequacy of revenues in rural areas,	Northeast China (Manchuria), 25–26. See also
437–441	Manchuria
township and village enterprises (TVEs)	Northeast Revitalization Program
and, 277, 439	origins of, 29–30
urban land markets and, 118–119	pensions and, 205
Municipalities under national supervision,	NPLs (nonperforming loans), 306–308,
22	460–467
Mutual funds, 319, 450, 475-476, 480	NRC (Natural Resource Commission), 49, 51,
Myers Ramon 33	65

Nuclear power, 3, 336, 342 Pension funds, as investors, 319, 450, 475–476, Nujiang, 502 Nyberg, Albert, 269 Pension plans, for workers, 175–176, 188–189, 202-205, 314, 480 Obesity, 266 People's Bank of China (PBC), 103-104, 389, Official supervision and merchant 451, 455, 456, 460 management (guandu shangban), 42 People's Republic of China (PRC). See also Off-post workers, 185–189 Socialist era (1949–1978) Oil and gas. See Petroleum industry founding in 1949, 4, 51, 55 Oilseeds, production of, 240, 242, 253, Perkins, Dwight, 39, 158, 326 Perry, Elizabeth, 117 One-Child Policy, 168–172 Personal income taxes, 432 consequences of, 170-172, 185 Pesticides, 265–268, 491–493 described, 168-170 Petrochina, 472-473 female infanticide and, 171–172 Petroleum industry, 29, 339–343, 472–473 urban-rural divide and, 169-170 conversion to joint-stock companies, 302 O'Neill, Mark, 441 exports and imports, 340-343 Open Cities, 409. See also Special economic growth in, 78-79, 335-336, 342-343 zones (SEZs) in Manchuria, 48 Opium War (1939), 40–41, 50 Philippines Ordinary trade (OT), 386, 391–392 Bataan Island export processing zone, 408 Ordos Basin, 342 foreign direct investment and, 405 Overseas Chinese, 27, 407 income distribution in, 218 Ownership. See also Corporate governance; Physical quality of life indicators (PQLI), Corporations; Privatization 221-225 change for state-owned enterprises, 104, education, 223 106–107, 189–190, 298–308, 468–469 Human Development Index (HDI), change for township and village enterprises, 223-225 106, 271–272, 286–292 infant mortality, 222-223 Company Law (1994) and, 104, 301–302, life expectancy at birth, 9, 82, 222 314-319 Pig farming, 267 employment and, 181-184 Planned economy. See Command economy government, oversight of, 315–319 Platt, U., 491 hybrid forms of, 323–325 Poland, transitional economy of, 107 nature of, 299 Policy banks, 457-458 Political business cycles, in market transition, Paramedics, in rural areas, 244–245 97 - 98Pardey, P. G., 261 Pollution Park, Albert, 188, 211-212, 215, 464 air pollution, 336, 490-491, 493-494 Patrilocal marriage, 124 broad impact of, 495-497 Patrinos, Harry Anthony, 194 control of, 494-495 PBC (People's Bank of China), 103–104, 389, costs of, 493-494 451, 455, 456, 460 water pollution, 266, 491–493, 494 Peanuts, 25 Population of China, 42–43, 161–178 Pearl (Zhujiang) River aging population impact on economy, delta. See Pearl River Delta 175–176 demands on, 22 birth control and, 132, 161, 167–172 topography of, 18 changing age structure of, 172–176 Pearl River Delta, 27–28 comparison with other countries, 20 commercialization process in, 36 demographic crisis and, 177, 480 demographic transition and, 161-170 foreign direct investment and, 409 international trade and, 381–382 dependency rate and, 7, 132, 161, 172-176, land contracts in, 247 203-206 rural industrialization and, 284 distribution of, 17-28 urbanization and, 128 famines of 1959–1961 and, 71–72, 80, 82, Penang Free Trade Zone, Malaysia, 407, 408 115-116, 161, 164-165, 168, 181, 238, 240, Peng, Dehuai, 71 252-253, 264 Peng, Xizhe, 83, 177 One-Child Policy, 168-172, 185

Portfolio investment	Productivity, structural change and increase
bond market and, 454, 477-478	in, 148–149, 154–155
institutional investors and, 319, 450, 475–476,	Profit and profit maximization
480	banking system reforms and, 460–466
stock market and, 302, 321-322, 454, 467-477	in corporatization process, 309–311, 315
Postal saving system, 458–459	in opening international trade, 384
Post and telecom authorities (PTAs), 344	regulatory oversight and, 318–319
Potatoes, as New World crop, 36	tax reforms and, 433–434
Poverty, 212–217, 225–226	township and village enterprise, 458
distribution of, 3, 30	Property rights
future challenges of, 10–11	coal and, 339
overall, 216–217	
	in rural economic system, 39–40, 114–115, 119–122, 200, 214–215, 234, 241, 244,
rural, 3, 212–216	246–248
as unacceptable, 6	
urban, 216	in urban economic system, 118–119, 123–124,
Poverty line	200, 314, 465
internationally comparable, 212–214, 225	in urban–rural divide, 113
rural, 212–214	Provinces of China
urban, 216	described, 22–28
Power machinery, green revolution and, 256,	map of, 23
260, 264–265	types of, 22
Prasad, Eswar, 421–423	Prowse, Stephen, 481
Pray, Carl, 268	Psacharopoulos, George, 194
Price/earnings ratio, 471–472	Publicly owned enterprises. See also State-
Price system	owned enterprises (SOEs); Township and
in command economy, 60–62, 381	village enterprises (TVEs); Urban
in market transition, 94–95, 312, 444	collectives
in opening international trade, 381, 384	decline of employment in, 183–184
Primary sector, 149. See also Industrialization	types of, 183–184
of China; Manufacturing in China	Public-service units (PSUs)
changes in development process, 149	absolute number of workers in, 189
foreign direct investment and, 419-420	described, 117-118, 184
globalization and, 156–157	Pudong (East Shanghai) special zone,
gross domestic product change in, 153–155	409–410, 468
labor force changes in, 151–152	Purchasing-power-parity (PPP)
Private enterprise. See also Corporations;	calculating, 150
Entrepreneurial society; Privatization	growth in, 9
growth in, 184–185, 300–301	Putterman, L., 8
legal protection for, 184	, ., .
new corporate forms in, 104, 106–107,	Qian, Jinchang, 364
189–190, 298–304, 314–319	Qian, Pingfan, 293
self-employment, 184, 190	Qian, Yingyi, 99, 110, 287, 293, 326
Privatization	Qingdao, textile production in, 44
"big bang" approach in other countries, 7,	Qing dynasty, crisis of traditional economy
183, 310, 325–326, 453	and, 39–43
hybrid ownership and, 323–325	Qinghai Province, 28
management buyouts (MBOs) in, 106,	Qinghua University, Tongfang program, 359
289–290, 324	Qualified foreign investment institutions
in market transition, 95, 106, 123–124,	(QFII), 476
298–304	Quanta, 417–418
"privatization with a tail," 291–292	Qualita, 117 110
of state-owned enterprises, 104, 106–107,	Railroads, rehabilitation of, 78
189–190, 298–304, 468–469	Rare earth, 29
of township and village enterprises, 106,	Ration coupons, 81, 115, 116
271–272, 286–292	Ravallion, Martin, 211–214, 216–217, 220–221,
of urban housing, 123–124, 314, 465	227
Procurement preferences, 367	Rawski, Evelyn, 36
Production chains, 416–418	Rawski, Thomas, 14, 33, 45, 53
	,,,,,,,,

Ray, Partha, 437	Rozelle, Scott, 120, 149, 200, 211–212, 262–263,
RCCs (rural credit cooperatives), 237–238,	269, 287, 288, 292, 293
279, 451, 458, 467	Rumbaugh, Thomas, 422
Reemployment centers (RECs), 186–189,	Rural credit cooperatives (RCCs), 237–238,
314	279, 451, 458, 467
"Reform with losers," 91, 106–107	Rural economic system, 119–122, 229–294. See
"Reform without losers," 91, 99, 109, 183–184,	also Agricultural collectives; Agriculture in
460	China; Rural-to-urban migration; Township
Regional development programs, 29–30	and village enterprises (TVEs);
Coastal Development Strategy, 393	Urban–rural divide
Northeast Revitalization Program, 29–30,	deindustrialization of, 272
205	education and, 197
patterns in manufacturing, 333	"Five Small Industries" in, 76, 273–274
Western Development Program, 18, 29, 216,	impact of World Trade Organization
	membership on, 133–134, 268–269
410, 439–440 Pagulatany raforms 102, 105	
Regulatory reforms, 102–105	inadequacy of local government revenues,
banking and financial systems, 103–104, 108,	437–441
460–464, 471–475 corporate governance, 104, 302–303, 316–319	labor markets in, 191–192, 266
	in market transition, 88–90, 109–110, 122–124
development of regulatory apparatus,	
108–109 environmental control, 488, 493, 494, 495	poverty in, 3, 212–216 property rights in, 39–40, 114–115,
fiscal, 103	119–122, 200, 214–215, 234, 240, 241, 244,
stock market, 471–475	246–248
tax, 103, 108, 268, 278	rural credit cooperatives (RCCs) in,
Related-party transactions, 322–323, 471–472	237–238, 279, 451, 458, 467
Ren, Ruoen, 141	second revolution reforms (1979–1984),
Research and development (R&D). See also	240–246
Technology policy	social services and, 237–238, 243–246,
comparative outlays for, 352–354	438–441
human capital and, 350, 361–363	villages in, 231–233
output of, 363–365	Rural Land Contracting Law (2003), 247
R&D/GDP ratio, 352–356	Rural-to-urban migration
strategies for investing in, 356–361	education and, 198
Residence permits ( <i>hukou</i> ), 116–117, 124–129	"floating population" and, 129–131
Retail sector, relative shrinkage of, 80–81	government restrictions on, 113–114, 116,
Retherford, Robert D., 166, 178	124–126, 181, 216
Retirement of workers, 175–176, 187–189, 480.	growth of, 129
See also Pension plans, for workers	household registration system and, 116,
Rice	124–126, 200
export of, 268–269	individual decision process for, 199–201
"Grain First" policy and, 239–241, 252–254	migrant characteristics, 131
grain rationing and, 81, 115, 116	migrant domination of job sectors,
high-yield varieties (HYVs), 262–263,	190–191
265–266	nonpayment of wages and discrimination in,
labor-intensive production of, 239, 242	125
region for producing, 257	overview of, 129–131
in traditional agriculture, 35–36, 39–40	population growth and, 174–175
Richardson, Philip, 34, 46, 53	"Sunshine Policy" (2003) migrants, 134
Riskin, Carl, 39, 83, 220–221	urban residence permits (hukou) and,
Roberts, Kenneth D., 200	116–117, 124–129, 188
Roland, Gérard, 99, 110	Rural–urban transformation, 7, 9
Rong, Zongjing, 44	Russia. See also Soviet Union, former
Roseboom, J., 261	Japanese seizure of Liaodong Peninsula
Rosen, Dan, 369, 372	from, 47
Roumasset, James, 499	petroleum industry in, 342
Roundtripping, 415–416	savings and, 452–453
Royal Bank of Scotland, 466–467	Ruttan, Vernon W., 256, 269

SAC (Statistical Abstract of China), 13	foreign direct investment and, 405, 409–410
Sachs, Jeffrey, 107, 110 Salinization, 260	Human Development Index (HDI) of, 224 225
SASAC (State Asset Supervision and	hybrid modern culture in, 47, 49, 50, 51
Administration Commission), 302–303,	Japanese investment in, 48, 49
316–321, 324–325, 358	link with Beijing, 26
Savings rate	modern information economy in, 3
dependency rates and, 174	One-Child Policy and, 170
foreign direct investment and, 405	out-migration during Cultural Revolution,
household, 428–430	127–128
in market transition, 96–97, 279, 428–430	petroleum industry in, 342
trends in national, 428–430, 452–453	Pudong (East Shanghai) special zone,
Schaaper, Martin, 363, 372	409–410, 468
Schurmann, Franz, 69	reemployment centers (RECs) in, 186, 188
Seagate, 417	rural industrial development and, 280, 282
Secondary sector, 149	rural-to-urban migration and, 130-131
changes in development process, 149–150	subsidence of land, 500
globalization and, 156–157	textile production in, 44
gross domestic product change in,	as Treaty Port, 42, 44
153–155	urban residence permits (hukou) and, 124
Seed-stage research and development	Shanghai Bell Alcatel, 357–358
funding, 358–359	Shanghai Dalong Machinery Company, 44
Seed varieties	Shanghai Stock Exchange, 302, 321–322, 451
green revolution and, 261–263	467–469, 472
in traditional agriculture, 35	Shantou SEZ
Segal, Adam, 359	described, 28, 408
Sehrt, Kaja, 464	development of, 409
Seki, Mitsuhiro, 350, 362	Shanxi Province
Selden, Mark, 116	coal reserves in, 342
Self-employment, 184, 190	in northern plateau region, 28
Semiconductor Manufacturing International	Shenzhen SEZ
Corporation (SMIC), 369	described, 28, 408
SEPA (State Environmental Policy Agency),	development of, 128, 406, 408, 409, 451,
488, 494, 495 Sarviga sactor, See Tartiary (sarviga) sactor	467–468 stock evelopge 451–467–460, 472
Service sector. <i>See</i> Tertiary (service) sector Severe acute respiratory syndrome (SARS),	stock exchange, 451, 467–469, 472 Sichuan Province
245	Chongqing Municipality and, 22, 26
Sewage, 491	famines of 1959–1961, 71–72, 115–116
Sex ratio, 171–172	forests and grasslands of, 499
SEZs. See Special economic zones (SEZs)	land contracts in, 247
Shaanxi Province	peasant experiments of 1978–1979, 241
coal reserves in, 342	poverty in, 30
cooperative health care in, 246	Third Front (1964–1966), 74
forests and grasslands of, 499	in Upper Yangtze macroregion, 26–27
land contracts in, 247	Silk manufacture, in commercialization
in northern plateau region, 28, 30	process, 37–38
poverty in, 30	Singapore
Shandong Province	economic growth of, 59
foreign direct investment and, 414	as Four Tiger economy, 396
German concessions to Japan after World	investment in China, 414
War I, 47	social security and, 204
insider privatization in, 290	technology of, 351
new household registration system in,	Single-lineage villages, 232
125–126	Sino-Japanese War (1895), 41–42
privatization of TVEs in, 323	Sinpec, 302
rural industry in, 279, 290, 291	Sinton, Jonathan, 347
Shanghai	Siu, A., 423
cooperative health care in, 246	Skinner, G. William, 23, 31, 232–233, 248

Small-scale enterprises. See also Southern Manchurian Railroad, 44-45 Entrepreneurial society Southwest China macroregion, 18, 27 in "bottom-heavy" economy, 37-38, 55, 272 Soviet Union, former. See also Russia command economy of, 59-62, 66, 181-184 growth of, 281 informal sector, 187, 189-191, 205, 303-304 compared with China, 60-62, 67-68, 86-87, in urban economic system, 118, 183, 303-304 181 - 184Smil, Vaclay, 501, 503 dissolution of, 390 mission-push model of R&D and, 356 Socialist era (1949–1978), 59–84. See also Agricultural collectives as model for China, 64, 66, 310, 325-326, 444 benefits of, 7-8 as patron of China, 354-355, 379 "Big Push" development strategy, 55-60, 65, seizure of industry in Manchuria, 51 66, 69, 74, 81–82, 96, 115, 143–144, 264, 273, withdraws advisors from China, 71 Special autonomous regions (SARs), 22. See command economy in, 55, 59-62, 87 also Hong Kong; Macau consolidation and drift (1972-1976), 76-77 Special economic zones (SEZs), 27–28, 402, crisis and "readjustment" (1961-1963), 72-73 406-411, 414. See also Shantou SEZ; Cultural Revolution (1967–1969). See Shenzhen SEZ; Xiamen SEZ; Zhuhai SEZ Cultural Revolution (1967–1969) Chinese versus Asian, 407-409 disillusionment with, 4, 5 establishment of, 382, 387, 406-407 economic recovery (1949-1952), 64-65 promotion by Deng Xiaoping, 52 First Five-Year Plan (1953–1957), 65–67, 73, Spence, Jonathan D., 53 379 Spinoffs, R&D, 359-360 Great Leap Forward. See Great Leap Sponsor legal persons, 470 Forward (1958–1960) Stalin, Joseph, 60, 67 Hundred Flowers (1956–1957), 67–69, 80 Standard market areas, 232-233 international trade and, 379-380 Start-up firms Leap Outward (1978), 77–79, 89 in market transition, 94 legacies of, 79-83 technology enterprises, 361, 367 legacy of pre-1949 economy for, 50-51 State Asset Supervision and Administration Maoist model/martial law (1969–1971), Commission (SASAC), 302–303, 316–321, 75–76, 379–380 324-325, 358 market transition, 4-6, 7-8 State Environmental Policy Agency (SEPA), origins of urban-rural divide in, 114-116 488, 494, 495 policy instability in, 62-80 State Forestry Administration, 498 Third Front (1964–1966), 73–74, 76, 77 State-owned enterprises (SOEs). See also Third Plenum (1978), 79, 89, 240–241 Stock market; Township and village unique features of China under, 8-10, 60-62 enterprises (TVEs) Social mobility assets-management companies (AMC), in commercialization process, 37 462-463 government restrictions on, 60, 113-114, 116, banking reforms and, 61, 103-104, 454-456, 124-126, 132-134, 181, 216 462 Great Leap Forward and, 115, 127, 183 at core of command economy, 297-298 job mobility limitations and, 117, 181-183 corporate governance change and, 308-323 living standards and restrictions on, 132-134 debt-equity ratios of, 306-308 Social security, 202–206, 480 decline in budgetary revenues of, 101, 102, creation of, 186, 204 305, 432-436 in market transition, 122-123, 314 decline in number of, 313 problems of creating, 202-203 described, 117-118 size of system, 204-205 importance in Chinese economy, 275 social safety net and, 122 international trade and, 387 SOEs. See State-owned enterprises (SOEs) loan write-off of, 308 Soft budget constraint, 307, 309, 453, 460-464 market transition, 122 origins of stock market and, 468-469 Sojourning, 200, 201 Solinger, Dorothy, 135 ownership change and, 298-308 Song, Lina, 135, 194, 198, 199 position of workers in, 99, 105-107 Song dynasty (AD 1127–1279), 35 restructuring and downsizing of, 99, 105–107, Sorghum, 242 151–153, 179–180, 183–189, 298–304, Southeast Asia, 8 314–319, 468–469

State-owned enterprises (SOEs) (cont.)	as Four Tiger economy, 396
savings rate and, 428–430	growth in comparative perspective, 143, 147
soft budget constraints and, 307, 309, 453,	international trade and, 381–382, 387, 407,
460–464	408
subcontracting to rural enterprises, 280	investment in China, 401, 402, 413-414
State sector. See Government sector;	Kaohsiung export-processing zone in, 407,
State-owned enterprises (SOEs)	408
Statistical Abstract of China (SAC), 13	labor force of, 418
Statistical Yearbook of China (SYC), 13	restructuring of, 418
Steel industry, 25, 42, 45	seizure by Japan, 41–42, 48
market transition, 92–93, 329–333	technology of, 351-353, 368
value chains and, 57–58	Taiyuan, 28
Steinfeld, Edward, 369, 372	Tang, Zhimin, 365
Stern, David I., 487–488	Tao, Ran, 206
Stock market, 467–477	Tao, Youzhi, 280
birth of, 468–469	Tariffs
capital structure of listed firms, 470	international trade and, 384–385
characteristics of, 469–474	tariff-rate quotas (TRQs), 391
initial public offerings (IPOs), 469, 470,	Tarim Basin, 18, 340, 342
473–474	Tawney, R. H., 40
institutional investors, 319, 450, 475–476, 480	Tax havens, 413
stock exchanges, 302, 321–322, 451, 467–472	Tax reforms
total capitalization/GDP, 468, 476–477	abolition of agriculture tax, 134, 268, 278,
valuations of companies, 322	439–440
Stone, Bruce, 262–263	in fiscal reform of 1994, 431–436, 440–441
Storey, Ian, 341–342, 348	foreign direct investment and, 411
Structural change, 6–7, 148–157, 329–348. <i>See</i>	international trade and, 386, 387, 389
also Urbanization	in market transition, 103, 108, 278
common patterns of, 148–151	technology policy and, 364, 367
in energy, 329–330, 332–343	Taylor, J. Edward, 200
in gross domestic product (GDP), 153–155	Taylor, Jeffrey, 248
infrastructure investment and, 345–347	Tea industry, in globalization process, 38
in international trade, 156–157, 392–396	Team enterprises, 181, 235, 244
labor and, 151–153	Technical standards, technology policy and,
in manufacturing, 329–333	367–368
productivity increases, 148–149, 154–155	Technology policy, 349–361
sector descriptions, 149	energy efficiency and, 337–338
in telecommunications, 343–345	foreign direct investment (FDI) and, 352,
Subsidiaries of corporations, Hong Kong as	360, 405–406
home of, 415–416	human resource base and, 350, 361–363
Subsidized credit, technology policy and, 367	institutions and incentives in, 350, 363–371
Sugar beets, 242	integration into global networks, 368–371
Sun, Jingzhi, 31	intellectual property rights (IPR) and, 351,
Supply and marketing cooperatives (SMCs),	364–365, 371, 411
237–238	international trade and, 393–396
Surplus workers, 185–189	jumps in productivity and, 147
Sustainability of resources, 488–489, 495–502	R&D/GDP ratio and, 352–356
Suttmeier, Peter, 368, 372	strategies of R&D investment, 356–361
SYC (Statistical Yearbook of China), 13	technology effort and, 350–361
Taining Deballion (1960s) 40, 41	trajectory of, 353–356
Taiping Rebellion (1860s), 40, 41	Teece, David, 371
Taiwan	Telecommunications
accelerated growth after 1950s, 34, 52, 57–59	mobile phone handset industry, 370–371
as China Circle economy, 416–418 economic ties with China, 8, 27, 401, 402,	structural change in, 343–345
413–414, 416–418	technology policy and, 357–358 telephones in villages, 232
food production for Japan, 48	Temasek, 466
foreign direct investment and 404–405	Tenancy in traditional agriculture 39–40

Tenev, Stoyan, 322, 326	hard budget constraints of, 309
Tertiary (service) sector, 149	industrial clusters and, 292-293
changes in development process, 150–151	international trade and, 384
globalization and, 156–157	in market economy transition, 90, 291,
gross domestic product change in, 153–155	299–300
labor force changes in, 152–153, 189	origins of, 181, 272–274
Textiles	privatization of, 106, 271–272, 286–292
household-based economy of, 37-38	rapid growth, causes of, 275–282
post–1978 growth of, 329–330	regional models of development, 282–284
in Treaty Port industrialization, 44, 46	savings rate and, 430
Thailand	Trade. See International trade
Asian financial crisis (1997–1998) and, 307,	Trade credit, 305, 451
461	Traditional economy (1127–1911), 34–43
foreign direct investment and, 405	agriculture in, 34–40
	commercialization of countryside in, 36–38
growth in comparative perspective, 143	
income distribution in, 218	crisis of, 38–40
investment rate of, 144–145	Japanese and Western dominance and, 40–43
Third Front (1964–1966), 73–74, 76, 77	legacy of, 51–53, 89–90, 91–92, 272
Third Plenum (1978), 79, 89, 240–241	Traditional state-owned enterprises (TSOEs).
3M, 409	See State-owned enterprises (SOEs)
Three Gorges Dam, 26–27, 501–502	Tragedy of the commons, 498
Tianjin Province	Transportation system
on North China Plain, 23–25	coal production and, 336
rural industrial development and, 280	infrastructure investment and, 346–347
subsidence of land, 500	pollution from, 490–491
textile production in, 44	railroads in, 44–45, 78
Tibet	
	villages and, 232 Treaty of Nanking (1842), 40–41
Human Development Index (HDI) of,	
224	Treaty of Shimonoseki (1895), 41–42
population of, 22	Treaty Ports
Tibetan Plateau, 17–19, 28	establishment of, 18, 41–44
Tienanmen student demonstration (1989)	extraterritoriality and, 42–44
impact of, 11, 443	industrialization based on, 44
in market transition, 98–100, 390, 403, 443	special economic zones (SEZs) compared
Tin, 29	with, 52
Tong, Sarah Y., 399	Tree planting, 498, 499
Torch program, 359	Treiman, Donald J., 124
Total bank debt to shareholder equity, 306	Tungsten, 29
Total capital formation, 144–145	Tunneling, 299
Total fertility rate (TFR)	Turfan depression, 17
demographic transition and, 162–164,	TVEs. See Township and village enterprises
166–167	(TVEs)
dependency rates and, 173, 174	T 11/2 : D : 200 422
One-Child Policy and, 170	Unal-Kesenci, Deniz, 399, 423
Township and village enterprises (TVEs),	Underemployment, 185
271–294	Unemployment
banking system and, 278–279, 288–289	market transition and, 314
as basis for market economy, 51–52, 90	reemployment centers (RECs), 186–189,
changing economic environment of, 285-286	314
decline of, 184	in urban economies, 6, 152, 179-180, 184-189
emergence of new rural industry and,	Unger, Jonathan, 248
292–293	Unicom (China United Telecom), 343–344
extrabudgetary funds and, 438–439	United Nations Development Programme,
failed development of, 284, 303–304	Human Development Index (HDI),
formation of, 121–122, 152, 181, 235	223–225
"fuzzy" property rights and, 121–122	United States
golden age of, 274–275	affiliates of companies in China, 365
government hierarchy versus, 119	agricultural production in, 256

United States (cont.)	in household income growth, 210–212
Anglo-American system of corporate	Human Development Index (HDI) and,
governance, 319, 321–323	223–225
central bank as model for China, 103–104	increase since 1978, 132–134
Chinese rapprochement with, 77	market transition and, 122-124
Chinese students in, 47, 363	origins of, 114–116
economic links of China and, 11, 77	policy focus on, 134
educational attainment in, 196	in poverty, 212–217
gender gap for wages in, 199	rural economic system and, 119-124,
investment in China, 413–414	437–441
University system	rural-to-urban migration and, 129-131
Chinese students abroad and, 47, 363	urban economic system and, 116-119,
Cultural Revolution and shutdown of, 82	122–124
origins of, 51	urbanization process and, 126-129
Unregistered private banks, 478	Uruguay Round, 390
Upper Yangtze macroregion, 26–27	
Urban collectives	Value-added tax (VAT)
urban credit cooperatives, 457, 459	imposition of, 103, 432–433, 434
urban work units ( <i>danwei</i> ), 114, 116–118,	international trade and, 386, 389
122–124, 186, 202–206, 299–300, 309,	technology policy and, 367
311–314	Value chains, 57–59, 330, 368–369
Urban economic system, 296–374. See also	Van Slyke, Lyman P., 31
Public-service units (PSUs); Rural-to-urban	Venture capital, technology policy and, 367
migration; State-owned enterprises (SOEs);	Vermeer, Eduard, 35–36, 237
Urban–rural divide	Village committees, 232
danwei (work units) in, 114, 116–118,	Village doctors, in rural areas, 244–245
122–124, 186, 202–206, 299–300, 309,	Villages. See also Township and village
311–314	enterprises (TVEs)
employment in, 181–184	nature of rural, 231–233
market transition, 122–124	nature of fural, 251–255
	Wagner T 401
privatization of urban housing, 123–124, 314,	Wagner, T., 491
465	Walder, Andrew, 120 "Walking on two legs" technology policy
	"Walking on two legs" technology policy, 70–71
property rights in, 118–119, 123–124, 200,	
314, 465	Walter, Carl, 481
residence permits ( <i>hukou</i> ) in, 116–117,	Wan, Li, 241
124–129, 188	Wang, Feng, 177
unemployment in, 6, 152, 179–180, 184–189	Wang, Gabe T., 36
urban credit cooperatives, 457, 459	Wang, Huijiong 357
Urbanization, 126–129. See also Rural-to-	Wang, Huijiong, 357
urban migration	Wang, Jinxia, 500
out-migration during Cultural Revolution	Wang, Qing, 422
versus, 127–128	Wang, Sangui, 211–212, 215
small-town urban management systems	Wang, Yijiang, 287, 293
(jianzhi zhen), 128	Water, 20–22. See also Irrigation
trends in, 7, 9, 126–128	availability of, 500–502
Urban residence permits (hukou), 116–117,	dam projects, 26–27, 501–502
124–129	groundwater levels, 266, 500–502
Urban-rural divide, 113–136. See also	hydropower and, 336
Rural-to-urban migration; Township and	pollution of, 266, 491–493, 494
village enterprises (TVEs)	salinization and, 260
aging population and, 175–176	Watson, Andrew, 275–276
agricultural collectives and, 114–115, 119	Wei, Shang-Jin, 399, 421, 423, 464
contemporary administrative barriers,	Wei River, 28, 39
124–126	Weitzman, Martin, 287, 293
economic consequences of, 131–134, 437–441	Welch, Jack, 318
in education, 192–198	Wen, Guanzhong James, 83
family size and, 167, 169–172	Wen, Jiabao, 108–110, 366, 502

Wenzhou, rural industrialization and, 277, 283 iron and steel mill of, 42 West, Loraine A., 203-204, 438 in Middle Yangtze macroregion, 26 Western Development Program Wuxi, industrialization in, 44 nature of, 216, 439-440 origins of, 18, 29, 410 Xia, Qingjie, 194, 198, 199 Whalley, John, 263 Xiamen SEZ Wheat described, 28, 408 on North China Plain, 25, 260 development of, 409 production of, 242, 265 Xi'an, 28, 39 region for producing, 257 Xie, Wei, 359 water availability and, 500 Xinjiang Province White, Steven, 350, 359, 372 One-Child Policy and, 170 Whiting, Susan, 438 petroleum industry in, 342 Xu, Chenggang, 287, 293 Wiemer, Calla, 446 Wiens, Thomas, 239 Xu. Luodan, 423 Will, Pierre-Etienne, 39 Xu. Xianchun, 14 Williamson, Samuel H., 14 Xu, Xiaobo, 478 Wong, Christine P. W., 92, 273–274, 438, 440, 446 Yang, Dali, 13 Wong, R. Bin, 39 Yang, Dennis Tao, 83 Wong, Sonia M. L., 322 Yang, Yiyong, 206 Woo, Wing Thye, 107, 110 Yangtze (Changjiang) River Work experience, 198–199 delta. See Yangtze River Delta Work points, 235-238, 241, 244 demands on, 22, 257, 493, 494, 499, 501-502 World Bank Lower Yangtze macroregion, 25, 39-40 analysis of tariffs, 384-385 Middle Yangtze macroregion, 26 costs of pollution, 493 Three Gorges Dam, 26-27 development indicators of, 3, 9, 14, 212–214, topography of, 18 Upper Yangtze macroregion, 26–27 foreign debt owed to, 441-442 Yangtze River Delta, 25 purchasing-power-parity (PPP) calculations agriculture in, 239 and, 150 foreign direct investment and, 409, 414 World Health Organization (WHO), 123, rural industrialization and, 282 490 urbanization and, 128 World Trade Organization (WTO) Yao, Shujie, 227 Chinese accession to (2001), 7, 100, 104–105, Yao, Xiangkui, 368, 372 110, 252, 345, 360, 377, 389–391, 393–394, Yeats, A., 399 401-402, 419-422, 449, 466 Yellow (Huang) River creation of, 389-390 demands on, 21-22, 260, 492-493 end of restrictions on foreign banks, topography of, 18 480-481 Yeltsin, Boris, 86 Hong Kong in, 414-415 Yeung, Bernard, 473 Young, Alwyn, 14, 141, 158 impact of Chinese trade liberalization, 133-134, 252, 268-269, 298, 345, 360, 385, Yu, Jianrong, 121 388-391, 398-399, 401-402, 419-422 Yu, Jingyuan, 168 impact on sectoral composition of foreign Yu, Wayne, 473 direct investment, 419-420 Yunnan-Guizhou Plateau, 18, 27 tax rebates and, 389 Yunnan Province, poverty in, 30, 225 technology policy and, 360 Yusuf, Shahid, 326 World War I, German concessions following, Zedtwitz, Maximilian von, 372 World War II, Japanese defeat in, 48, 65 Zejan, M., 147 Wu, Guobao, 215 Zelin, Madeleine, 36 Wu, Jinglian, 13, 110, 474 Zhang, Chunlin, 322, 326 Wu, Kang, 341-342, 348 Zhang, Junsen, 194, 198, 206 Wu, Xiaogang, 124 Zhang, Shanyu, 128, 135, 165-166, 170 Wuhan Zhang, Xianghan, 31 in "four furnaces," 20 Zhang, Xiaobo, 245, 246

Zhang, Yi, 172, 178 Zhang, Zhihua, 440 Zhang, Zhongli, 39, 228 Zhao, Ji, 31 Zhao, Songqiao, 31 Zhao, Yaohui, 200, 201 Zhao, Ziyang economic policy and, 91, 100, 241 Tienanmen aftermath and, 98 Zhejiang Province industrial clusters and, 293 land contracts in, 247 multicropping index in, 257–258 new household registration system in, 125-126 rural industrial development and, 279, 283, 293 rural-to-urban migration and, 130-131 Zhou, Enlai, 77 Zhou, Kate Xiao, 248 Zhou, Xueguang, 194, 198, 199 Zhu, Lijing, 263 Zhu, Rongji, economic reforms of, 91, 100, 102–103, 108, 335, 339, 468–469 Zhu, Tian, 301 Zhucheng, privatization of TVEs in, 291, 323 Zhuhai SEZ described, 28, 408 development of, 409 Zhuji, industrial clusters and, 293 ZTE Telecom, 325, 358, 364 Zweig, David, 363