INDEX

Affordable air transport service, 1 Air Asia. 209 Air Chathams, 246 Air China, 80, 86-88, 108 Air Liberalization Index (ALI), 66-67, 152 for Kazakhstan, 70, 72 for Tajikistan, 72 for Turkmenistan, 72 for Uzbekistan, 71 Air New Zealand, 246, 249-250 Air service availability Australia and Asia, 152-154 causality in aviation and tourism demand, 151–152 data. 154-155 dynamic system generalized method of moments estimator. 156 - 158economics of tourism demand and air transportation, 147–151 endogeneity problem, 155-156 implications, 163-164 method, 155 study context and data, 152 testing model, 158–159 total inbound visitors, 159-162 travel purpose, 162-163 various forms of endogeneity in panel data, 156 Air services agreements (ASAs), 41, 62, 124-125 Air traffic markets, 222 volume, 268 Air Transport World (ATW), 201 Air transport(ation), 80, 124, 147-151, 196, 222

Codeshare and Airline Alliance, 130-133 deregulation, 124-128 development, 260 hub-and-spoke system, 133 low-cost carriers, 128-130 network, 246, 252 impact of Open Skies, 133-134 regulation, 124-128 service, 1, 3, 62 Sri Lanka Tourist Arrivals, 132 and tourism demand, 149-151 AIRail service, 117 Airbus A320 aircraft, 260 AIRDO (see Hokkaido International Airlines) Airfares, 156 deregulation of, 83-84 Airline consolidations in China, 85 into "Big Three" Airline Groups, 85 - 86elimination of regional airlines, 85 large-scale airline mergers, 86-87 Airline Deregulation Act (ADA), 126 Airline mergers, large-scale, 86-87 Airline-HSR integration, 104–105, 115 co-location of airport and HSR station, 117-118 cooperation between airlines/ airports and HSR, 116-117 service integration, 105 Airline-in-airline strategy, 2 Airline(s) (see also Chinese Airline Industry; Singapore Airlines), 1-2, 7, 271alliance, 130-133

competition measurement in China's domestic market, 87 - 90equilibrium effort level, 281 groups, 80 measuring productivity change of, 203 - 205network scheduling process, 151 operations impact on airport planning and development, 259-260 performance, 198-199 technical efficiency and productivity results, 207-215 transport service, 4 Airline-rail integration, 117 Airlines-within-airlines (AWA), 19 - 20Airport Authority of Hong Kong, 85 Airport-airline relationship, 268, 271 Airports (see also New Zealand's airports), 7, 271 alliance, 272 business contribution of airport environments, 252-253 congestion and pricing, 272 connectivity, 249 efficiency, 222 environments, 253 facilitated contribution of airport network, 253 in imports and exports, 254–255 infrastructure investments, 269 localization. 85 network, 251-252 privatization and regulation, 272 role in economic development, 251 runway length, 228 in tourism growth, 255–259 Airports Council International (ACI), 285 All Nippon Airways (ANA), 11 Amami O-shima Island, 17 American Airlines, 130 Asia-Pacific region, 5-6, 80, 146 aviation overview for, 268-270

Asian countries, 104 Asian inbound tourism, 5, 147 tourism in, 152-154 Asian tourism markets, 2, 117, 146 Asiana Airlines, 250 Association of Asia-Pacific Airlines (AAPA), 1 Association of Southeast Asian Nations (ASEAN), 6, 128, 221 - 222airports, 232 **ASEAN-China Air Transport** Agreement, 134 cargo efficiency of, 240-241 movement efficiency of, 242-243 passenger efficiency of, 238-239 Auckland International Airport, 246, 249-250, 252, 255-256 Australia International Visitor Survey, 155 tourism in, 152-154 Australian Competition and Consumer Commission (ACCC), 131 Autocorrelation, 206 Available seat kilometer (ASK), 108, 179 Aviation. 62 capacity, 146 causality in, 151–152 overview for Asia Pacific Region, 268 - 270sector players, 270 service, 62 Beijing International Airport, 85, 88 Beijing–Guangzhou route, 93 Beijing-Shanghai HSR, 95 Beijing-Shanghai route, 93 Benchmarking, 207

- Bermuda Agreement, 125
- "Beyond right" freedom, 134
- "Big Four" Airlines, 98
- "Big Three" airline groups, 80, 85-86
- "Big Three" carriers, 84, 89-90

Blenheim and Dunedin airports, 251 Boeing 737-300 aircraft, 260 Boeing 737-800 aircraft, 260 Boeing 777 aircraft, 48 Boeing 777-300ER aircraft, 47 BP Air, 130 Braniff Airlines, 129 Business travelers, 162–163 Cargos, 228 Causality in aviation and tourism demand, 151-152 Centrair (see Chubu Centrair International Airport) Central Asia Central Asian international routes, 69 - 70international aviation market in Central Asia, 64-68 market analysis for, 68-74 Ceteris paribus effect, 150 Charnes, Cooper, and Rhodes model (CCR model), 202, 224 Chengdu airports, 106 Chicago Convention (see Convention on International Civil Aviation (1944)) China airline consolidations and competition in domestic market, 85-90 airline deregulation, 87 Civil Aviation under Central Planning, 82 deregulation of airfare, 83-84 LCC sector, 107 transition from central planning to market orientation, 82-83 China Airlines, 250 China Civil Aviation, 171 China Eastern Airlines, 80, 84-85, 108 China Railway Corporation (CRC), 93 China Railways, 93

China Southern Airlines, 250 China Southern Airlines, 80, 85, 108 China Statistical Yearbook, 171-172, 176 Chinese air carriers, 4 Chinese Airline Industry, 80 CAAC, 171-172 data and methodology, 171 effects of HSR on, 90-97 empirical results, 178 Expectation Model, 179-182 fixed effect Tobit analysis, 182 - 185history and deregulation, 82–85 means and standard deviations of relevant variables, 179 on-time performance, 170-171, 173 - 178random effect estimation results, 185 - 192service quality, 169-170 Chinese airports, 85 Chinese city-pair air passenger flows, determinants of, 94 Chinese FSCs, 109 Chinese HSR network, 81 Christchurch airport, 249-250, 253, 255 Chubu Centrair International Airport, 30 Civil Aeronautics Act. 12 Civil Aeronautics Board (CAB), 125 Civil Air Navigation Services Organization (CANSO), 285 Civil Aviation Administration of China (CAAC), 4, 80, 82-83, 109.171-172 Civil Aviation Authority of New Zealand, 253 Civil Aviation Authority of Thailand, 130 Co-location of Airport and HSR station, 117-118 Codeshare, 130-133 Commercial Air Lines, 135 Commercialization, 246

Competition and regulatory change, 2 - 3Competitive aviation sector in Asia, 6 Conduct parameter, 88 Contractual payment structures, 274 Convention on International Civil Aviation (1944), 124, 134 Corporate actions, 176-177 Counterfactual analysis, 69 Cournot model, 88 Cournot-type noncooperative games framework, 277 Customer complaints, 172, 177, 185 Customer satisfaction, 169-170 Data envelopment analysis (DEA), 200, 202, 207, 222-224 Decision-making units (DMUs), 200, 207, 223, 226 Delta Airlines, 133 Dependent variable, 148, 155 Deregulation (see also Regulation) in air transport, 124-128 of airfare, 83-84 and Open Skies, 126-128 passenger traffic and growth rate, 127of route entry and exit, 84 Deregulation Act, 129 Destination composite prices, 149-150 Difference-in-differences approach (DID approach), 112, 116 Disaggregate output efficiency, 224 Discrete events, 148 Domestic air transport, 9, 11, 249 Domestic routes, 17 Dominant carrier, 178 Dubai-based airline, 34 Durbin-Wu-Hausman test (DWH test), 158-159 Dynamic endogeneity, 156 Dynamic panel GMM models, 155 Dynamic system GMM moments estimator, 156-159

Econometric principles, 146 Economic crisis, 215 Economic development, airports role in, 251-259 Economic indicators for countries in Central Asia, 64 Economic theory, 149 Economics of tourism demand and air transportation (see also Lowcost carriers (LCCs)), 147 air transport and tourism demand, 149 - 151factors influencing tourism demand, 149 international tourism demand, 147 - 148Eighth freedom of air, 138 Emirates, 133, 250 growth, 34-35 Empirical analysis, 5, 91 Empirical evidence on causality, 151 - 152Endogeneity, 150-151 in panel data, 156 problem, 155-156 Endogenous regressors, 156 Endogenous-weight TFP method, 223 "Entry barrier" parameter, 68-69 European markets, 91 European Union (EU) commission, 128 SAM, 63 single air transport market, 125 Europe-Australasian corridor, 43 Exchange rates, 154 Exports, airports role in, 254–255 Far Eastern Air Transport, 135 Fiji Airways, 250 Firms, 198 Fixed effect model, 111 panel regressions, 155, 162 Tobit analysis, 182–185

59 Flag carrier, 125, 126

FlyDubai airline, 36 Frankfurt-Kuala Lumpur-Frankfurt market, 51 - 52Freedoms of air, 134, 137-138 Fuel cost, 201 Fujian Airlines, 85 Fukuoka airport, 9, 11 Fukuoka city, 22 Full-service carriers (FSCs), 2-3, 12, 18 - 19, 104Full-service Turkish Airlines, 36 Game-theoretic framework, 197, 271, 276, 277 Gaming behavior, 270 Generalized method of moments approach (GMM approach), 5, 147, 201, 205-206 Generalized travel costs, 112 "Genuine" LCCs, 2-3, 11 Geography proximity, 160 of tourist flows, 153 Global air mobility, 146 Global airline transport service sector, Global aviation policy, 2 Global Financial Crisis (GFC), 149, 154 Global sourcing, 197 Government agency, 131 Government-owned airports, 269 Gravity model approach, 94 Gross domestic product (GDP), 43-45, 252 Guangzhou Baiyun International Airport, 88 Gulf Air, 34 Hainan Airlines, 84, 85 "Half-fare sale" strategy, 129

Hamilton airport, 251 Haneda (*see* Tokyo International Airport) Hangzhou International Airport, 85 Hansen test, 215 Hansen-J test statistic, 206-207 Hartsfield–Jackson International Airport, 133 "Headline-grabbing" service, 46-47 Herfindahl-Hirschman Index (HHI), 64, 76, 87, 152 Heteroskedasticity, 156 High-speed rail (HSR), 11, 81, 104 airline-HSR integration, 115-118 in China, 4 competition between LCCs and, 20 - 22development in China, 92-94 effects on Chinese airline industry, 90-97 estimated HSR speed effect, 115 impact on Chinese Airline Industry, 94-97 and LCC interaction, 106-110 network in China, 107 networks. 2 operating statistics of China's HSR, 106 rear-ending accident, 105 routes with HSR competition, 114 speed effect on airlines, 112-115 speed impact on airlines, 110-115 travel time, 81 unit operating cost comparison, 110 Hokkaido International Airlines, 11 - 12Holiday travelers, 163 Hong Kong–Bangkok market, 5, 134 airline operating services between, 136 one-way airfare, 137 "7-23 HSR rear-ending accident", 111, 113-114 Hub-and-spoke system, 133, 251 Ideal departure/arrival time, 131

Imports, airports role in, 254–255

Inbound visitors boost in Japan, 25 - 29Incheon International Airport, 106 Income, 154 and destination prices, 146 elasticity, 164 Industry High Level Group (IHLG), 268 Industry performance, 6 Intercept, 280, 282 Interdependence of airports and airlines, 7 International air freight movement, 254 International Air Navigation Conference, 124 International Air Transport Association (IATA), 80, 125, 201.285 International airlines, 249 International airports, 6, 232-234, 249, 260 International aviation market, 62 in Central Asia, 64-68 International aviation regulatory issues, 124 International Civil Aviation Organisation (ICAO), 124, 285 International Commission for Air Navigation (ICAN), 124, 125 International Coordinating Council of Aerospace Industries Associations (ICCAIA), 285 International gateway hubs, 249 International inbound tourism, 256 International tourism, 257 demand, 147-148 International tourist arrivals, 256-257 movements. 257 Ireland-based Ryan, 138 Itami (see Osaka International Airport) iv-type instrument, 206

J-test Statistics, 206 Jakarta-Amsterdam-Jakarta market, 51 Japan Air Service (JAS), 11–12 Japan Airlines (JAL), 11 Japanese aviation market, LCCs in barriers of LCCs expansion, 29 boost of inbound visitors in Japan and impact of LCC, 25-29 competition between LCCs and high-speed rail, 20-22 Japanese domestic market related to LCCs. 11-12 location of major airports in Japan. 10 movement of LCCs, 12-20 Open Sky policy in Japan, 22–25 trend of passenger volume in domestic market in Japan, 10 Japanese Civil Aeronautics Act, 11 - 12Japanese Civil Aviation Bureau (JCAB), 22 Japanese domestic market, 12 related to low-cost carriers, 11-12 Jetstar, 138, 246, 250, 260

Kansai (*see* Kansai International Airport) Kansai Airport, 13–14 Kansai International Airport, 30 Kazakhstan air liberalization index for, 70, 72 air transport services, 62 Keihanshin Metropolitan area, 30 Key economic indicators, 64 Key performance indices, 270 Kiwi Regional Airlines, 246 Korean Train Express (KTX), 81, 106 Kyrgyzstan air transport services, 62 WTO air liberalization index for, 70

Labor cost, 201 Land transport system, 259 Lerner index, 89 Liberalization, 63, 268-269 in air transport, 137 freedoms of air, 137–138 relaxing ownership restrictions, 138 - 139Liberalization of Passenger Air Services in Bangkok, 128 LIMDEP 8.0 package, 178 Linear incentive contract. 277-278 scheme, 270, 273 Linear payoff function model, 283 - 284Linear programming approach, 203 - 204Linear risk-sharing contracts, 270-271, 274 scheme. 278 Load Factor Guarantee Mechanism (LFGM), 273, 278 Low-cost carriers (LCCs) (see also Economics of tourism demand and air transportation), 2-3, 11, 63, 84, 104, 128–130, 249, 260, 269 barriers of LCCs expansion, 29 competition between HSR and, 20 - 22and HSR interaction, 106-110 impact, 25-29 Japanese domestic market related to, 11-12 movement of, 12-20 Lumpy investment, 269 Madrid-Barcelona market, 111 Maintenance, repair, and overhauls activities (MRO activities), 196, 199 Malmquist Productivity Index (MPI), 200, 203, 223 Mann-Whitney-Wilcoxon test (MWW test), 223, 228,

233, 235

Market analysis for Central Asia, 68–74 competition index, 89, 90 concentration index, 89 market-oriented reforms, 80 market/route fixed-effects, 156 Mathematical programming approaches, 202 MaxDEA software Pro 6.2, 205 Mean-variance utility function, 279-280, 284 Measurement error, 150 MEC, 263 n3 "Mid-and Long-Term Railway Network Plan", 81 Mid-to-Long-Term Railway Network Plan (MLTRNP), 92, 107 Middle East airlines: Emirates. Etihad, and Qatar Airways (ME3), 3, 34, 36 location advantages, 41-46 Mining-related industry, 147 Ministry of Land, Infrastructure, Transport, and Tourism (MLIT), 9, 11 Ministry of Railways (MOR), 92, 111-112 Ministry of Transport (MOT), 93 Modal split models, 96 Modified employee counts (MECs), 252 Moments estimator, generalized method of, 205-207 Movement, 228 Multilateral Agreement (MA), 128 Multilateral Agreement on Full Liberalization of Passenger Air Services (MAFLPAS), 128 Multiple-airports system (MAS), 116 Nagoya/Centrair airport, 9, 11 'Naive' model, 179-182 Narita (see Narita International Airport) Narita International Airport, 30

Narita-Amami by Vanilla Air, 17 Nash bargaining framework, 277, 280 National Development and Reform Commission (NDRC), 80 National ownership rules, 128 National-wide analysis, 95 Negotiation power balance, 283-284 Nelson airport, 251 New Chitose Airport, 30 "New emerging" airlines, 12, 17, 29 New Regulations for Foreign Investment in Civil Aviation Industry, 84 New Zealand Airport Association, 252, 258-259 New Zealand's airports, 246 impact of airline operations and tourism growth, 259-260 airports role in economic development, 251-259 infrastructure development and future plan of, 261 performance and network change in, 246-251 recent development and airlines in service, 262 system, 7 New Zealand's economy, 7, 246, 255 - 258"New" AirAsia Japan, 17 Newly industrialized countries (NICs), 196 Ninth freedom of air, 125, 138 Noncore services, 199 Noneconomic determinants, 3 Noneconomic factors, 66 Northwest Airlines, 131 Notice on Deepening Domestic Airfare Reform, 83 Notice on Policies Concerning Foreign Investment in Civil Aviation, 84 Noto Airport, 273 LFGM, 273-276

Official Airline Guide (OAG), 73, 246 OLS, 155, 158 dynamic pooled, 162 simple pooled OLS model, 156 On-time performance of scheduled flights, 171, 173-178 "One class multiple discounts" policy, 83 One way airfare (OW airfare), 130 Open Skies, 126-128 impact of, 133-134 agreement, 63, 127, 137-138 air policy, 22-25, 119 Operating cost, 201 Operating fleet, 201 Operating margin (OM_{it}), 178 Operating revenue, 177 "Opinion with regard to Promotion of Civil Aviation Development", 83 Origin-destination (OD), 109 Orthogonality conditions, 159 Osaka International Airport, 30 Osaka Metropolitan Area, 28-29 Osaka/Itami airport, 9, 11 Osaka/Kansai airport, 9, 11 Output-oriented efficiency indicator, 224 Outsourcing, 197 and airline performance, 198-199 airlines. 201-202 data descriptions and empirical approach, 199 generalized method of moments estimator. 205-207 impact on airlines' performance, 196-197 impact results on productivity and technical efficiency, 213-215 measuring productivity change of airlines, 203–205 performance enhancing attributes, 198 results of airlines technical efficiency and productivity, 207 - 213

technical efficiency and productivity growth, 199-200 technical efficiency estimation, 202 - 203Overall technical efficiency (OTE), 223 Panel fixed-effects model, 152 Paris Convention conference (1919), 124 Passenger kilometer (PKM), 179, 193 Passengers, 1-2, 228 demand and satisfaction, 4-5expectations in Chinese Airline Industry, 169-192 income, 2 volume, 66 **PB** Air, 130 Peach Aviation and Jetstar Japan, 2 - 3People's Republic of China (PRC), 82 Performance enhancing attributes of outsourcing, 198 Pre-tax profit margin (PTPM), 178, 192 "Price of Domestic Air Transport Aviation Reform Program", 80 Pricing, 48, 50 Amsterdam-Jakarta-Amsterdam Itinerary, 52 Frankfurt-Kuala Lumpur-Frankfurt Itinerary, 54 Jakarta-Amsterdam-Jakarta Itinerary, 53 Kuala Lumpur-Frankfurt-Kuala Lumpur Itinerary, 55 model, 80 revenue (USD) per passenger over years, 57 Shanghai (Pudong)-Singapore-Shanghai Itinerary, 57

Sydney-London, UK-Sydney Itinerary, 56 Private and foreign investment, 139 Private sector, 270 Privatization, 84-85, 246, 269 Profitability in Chinese Airline Industry, 169-192 Propensity score matching (PSM), 96, 109 Public Private Partnership (PPP), 269 Oantas, 250 Qantas Airways, 130 Qatar Airways, 36 Qualitative factors (QF), 148 Queenstown airport, 263 R&D productivity, 224 Railway administration functions, 93 Random effect model, 73-74 Rate-making distance, 93 Reference point, 280 Regional airlines, elimination of, 85 Regional airports, 249, 260 Regional type airport, 232, 234 Regional/local airports, 11 Regulation (see also Deregulation) in air transport, 124-128 history, 124-126 regulatory reform, 2 "Regulation on Domestic Investment on Civil Aviation", 84 "Regulation on Operation of Chinese **Civil Aviation Domestic** Routes and Flights", 84 "Regulation on Operation on Domestic Routes", 84 Revenue passenger kilometer (RPK), 196, 201 Revenue ton kilometer (RTK), 171, 178.193 **Risk-sharing contract** aviation overview for Asia Pacific Region, 268-270 discussion, 283-284

framework of analysis, 280-283 intercept or reference point, 280 literature review, 271-273 model, 276 Noto airport LFGM, 273-276 results, 280 setting, 276-280 slope, 280 vertical arrangements and linear risk-sharing contracts, 270 - 271Ryanair effect, 129 Safety effect, 95, 105 of HSR speed on airlines, 111-112 Sakon Nakhon, 130 Sapporo (see New Chitose Airport) Sapporo airport, 9, 11 Sargan test of overidentifying restrictions, 206 "Scheme of Domestic Airfare Reform", 83 Seat capacity, 146 Sendai Airport, 25 Sensitivity analyses, 96 Serial correlation, 156 Service quality in Chinese Airline Industry, 169-192 Service transit agreement, 125 Seventh freedom of air, 137–138 Shanghai Airlines, 84 Shanghai Hongqiao International Airport, 88, 117-118 Shanghai Pudong International Airport, 88 Shenzhen Airlines, 84, 86-87, 177 Shinkansen, dense network of HSR, 20 Shirking behavior, 270 Simple linear payoff function, 283 Singapore Airlines, 3, 250 competing on quality, 46 FSC Singapore Airlines, 3 full-service Oman Air, 36 lessons from, 58-59

ME3's location advantages, 41-46 pricing, 48, 50-57 route map for Emirates, 37 route network, 38-39 scheduled flight routings for Emirates to Europe & South-East Asia. 35 service features, 46-48, 49-50 strengths, 56, 58 Single Aviation Market (SAM), 63 agreement, 125 Skymark Airlines, 11-12 Skynet Asia Airways, 11-12 SkyTeam, 131-132 Slope, 280 Sociopolitical factors, 3 Solaseed Air, 12 Sounds Air. 246, 251 Southeast Asian countries, 221 Southwest Airlines, 129 "Southwest effect", 129, 130 Speed reduction, 112 Spring Airlines, 84-85, 98, 109 Sri Lankan Airlines' codeshare partnership, 131 Star Alliance, 131–132 Star Flyer, 12 Statistical Data on Civil Aviation of China. 172 Stimulative effect of aviation, 164 Strategic outsourcing, 197 Super-SBM DEA model, 224 System GMM procedure, 205

Tag-end cabotage, 125 Tajikistan air liberalization index for, 72 air transport services, 62 Target load factor, 280 Technical efficiency of airline, outsourcing impact on, 213–215 TFP MPI, 203 Thai Airways International, 130, 137 Thomson Airways, 250 Tobit model, 172 Tokyo International Airport, 30 Tokyo/Haneda airport, 9, 11 Tokyo/Narita airport, 9, 11 Total inbound visitors, 159-162 Total-factor output efficiencies (TFOE), 233 annual average efficiency score, 230 - 231ASEAN, 221-222 average output efficiency scores of airports, 230 average passenger efficiency scores by ASEAN countries, 231 - 232cargo efficiency of ASEAN airports, 240-241 correlation coefficients of inputs and outputs, 229 DEA, 222-223 international type airport, 232 - 234literature review, 223-224 methodology, 224-228 movement efficiency of ASEAN airports, 242-243 MWW test, 235 passenger efficiency of ASEAN airports, 238-239 results. 228 Tourism, 148 consumption, 148 routes, 16-17 Tourism 2025–Growing Value Together, 257 Tourism demand causality in aviation and, 151-152 economics, 147-151 Tourism development in Asia Pacific air transport deregulation impact on tourism industry, 128-134 Hong Kong-Bangkok market, 134-137

liberalization in air transport, 137 - 139regulation and deregulation in air transport, 124-128 Tourism growth, 7 airports role in, 255-259 impact on airport planning and development, 259-260 Trans World Airlines (TWA), 126 Transport mode, 2 Travel purpose, 162-163 "Travel time" effect, 95, 105, 110 of HSR speed on airlines, 111 Turkmenistan air liberalization index for, 72 air transport services, 62 Two-stage approach, 223 Two-stage least square (2SLS), 73, 74-75 Two-step GMM estimator, 206, 213 "Tyranny" of distance, 153

UK EasyJet, 138 UK House of Commons Transport Committee, 62 United Arab Emirates, 128, 139 United Nations World Tourism Organisation (UNWTO), 148 United States (US) airline market, 125 aviation market, 126 open-skies model, 127 Urumqi, 66 Uzbekistan air transport services, 62 WTO air liberalization index for, 71

Value-added effect (VA effect), 252, 255 Vanilla Air, 20 Vertical alliance, 268 Vertical arrangements, 270–271 Vertical HSR corridors, 98, 119 Virgin Australia, 250 Visiting friends and relatives (VFR), 163, 256

Wellington airport, 249–251 Wenzhou train accident, 95 World Trade Organization (WTO), 66–67 ALI for Kyrgyzstan, 70 ALI for Uzbekistan, 71 Trade Facilitation Agreement, 1

Zhengzhou airport, 106, 108