Index

Analytic hierarchy process (AHP), 143–144
  application with, 146–148
ARDL
  bounds test, 115–116
  model, 30–31
Asymmetric Granger causality analysis, 116
Augmented Dickey–Fuller technique (ADF technique), 31–32, 121

Bitcoin (BTC), 154–155, 165–168
  and energy efficiency, 167–169
  mining, 166–167
  nuclear energy efficiency, 169–171
  in nuclear power plants, 171–172
Bitcoin US Dollar (BTC/USD), 156
Blockchain technology, 167
Brazil, Russia, India, China, South Africa, and Turkey countries (BRICS-T countries), 29, 116
Brazil, Russia, India, China and South Africa nations (BRICS nations), 28
  BRICS-T countries, 29
  data and methodology, 31–33
  energy use, 33
  GCC, 30
  GDP, energy use, and carbon emission, 31
  individual unit roots test, 34
  Johansen cointegration test, 35
  stationary test results, 34
  VECM analysis, 34, 36
  Wald test results, 37
Brent Petroleum, 157
Brent Petroleum Spot US Dollar (XBR/USD), 156

CADF test, 119
Canadian economy, 128
Carbon emission, 2
Carbon footprint, 28
CD_{LM} test, 121
CO_2 emission (CO), 28, 31–32, 114, 168
CoinMarketCap, 154
Commercial growth, 114
Correlation matrix, 157–158
Covid-19 pandemic, 154
Crypto assets, 154–156
Cryptocurrency, 167–168
CUP-BC estimator, 120–121
CUP-FM estimator, 120–121
Current account deficit, 142–143

Decision making trial and evaluation laboratory (DEMATEL), 146
Delta test (Δ test), 119
Democratic Republic of Congo (DRC), 115
Descriptive statistics, 157–158
Developed economies, 28, 101
Direct employment, 142–143
Disappearing effect, 76–77
Diversification, 157–159
Double flash power plants, 4–5

Ecological Carbon Footprint, 114–115
Ecological Footprint, 114–115
Econometric analysis, 76
Economic growth, 14, 114, 142

directions on relationship between, 44
financial capital, 42
financial market, 42
impact of financial sector, 43–47
Keynesian approach, 43–44
loan capital, 41
materials and methods, 14–17
supply-side stimulation, 42–43
Economy, 43
impact of financial sector on, 43–47
Emotional intelligence, 56–57
Energy, 1–2, 141–142
efficiency, 167–169
resources, 141–142
sector in Turkey, 59–63
use, 32–33
Energy investment, 14, 69, 144–146
analysis of results, 129
Canadian economy, 128
directions on relationship between, 44
financial capital, 42
financial development and, 73, 75, 86, 88
financial market, 42
impact of financial sector, 43–47
improving monetary regulation, 130–133
inflation on financial development, 127–128
inflation rate, 129–130
Keynesian approach, 43–44
loan capital, 41
supply-side stimulation, 42–43
variables, 72
Energy-hungry bitcoin
bitcoin, 154–155
correlation matrix, 157–158
crypto assets, 155–156
data, 156
descriptive statistics, 157–158
methodology, 156–157
minimum variance portfolios, 158–160
variance-covariance matrix, 157–158
Environmental degradation, 114
Environmental Kuznets Curve (EKC), 28, 114
Environmental pollution, 28
Error correction (EC), 32–33

Financial capital, 42
Financial depth, 17
Financial development, 14, 69, 72, 100
and energy investment, 73–75
materials and methods, 14–17
parameters of, 90
as process of reducing costs, 17–19
Financial instruments, 154
Financial market, 42
Financial science, 17
Financial sector on economy, 72–77
Fixed Effect Panel Quantile Bayesian Regression approach, 29
Fixed nominal interest rates, 43–47
Flash-steam power plants, 4–5
"Following demand", 42
Fuel-based technologies, 143
Fuel-free technologies, 143

G-7 countries, 114–115
ARDL bounds test, 115–116
data description, 116–118
empirical results, 116
estimation of cointegration coefficients Cup-Fm, 123
model specification, and methodology, 116–118
Gen IV technology, 170–171
Generalized method of moments (GMM), 30
Geothermal energy. *See also* Renewable energy (RE), 2
aspects of investments, 2–7
new perspectives on investments, 7
German economy, 128
Gold Spot US Dollar (XAU/USD), 156
Granger causality test, 33
Gross domestic product (GDP), 28, 32
Gulf Cooperation Council (GCC), 30

Human capital, 144

Indirect employment, 142–143
Indonesian economy, 30–31
Industrialization, 114
Inflation, 101–102
  tax, 46–47
Institutional approach, 19
Intellectual capital, 144
Interaction function, 90
Intergovernmental Panel on Climate, 2–3
"Inverted U", 114

Keynesian approach, 43–44

"Law and Finance" concept, 18–19
Leadership, 56–58
  existence of emotional intelligence, 58–59
Less developed zones, 28
"Low base effect", 87

Minimum variance portfolios (MVP), 155, 158, 160
Modern portfolio optimization techniques, 153
Modern Portfolio Theory (MPT), 153
Monetary conditions, 14
Monetary factor thresholds
  in developed countries, 87
  economists search, 87
  financial development and energy investment, 86, 88
  government intervention in economy, 85–86
  inflation and monetary factors, 88–89
  level of inflation, 86
  nonlinear impact of financial development, 89
  relationship between growth and finance with, 89–91
Monetary factors, 100
Monetary inflation, 46
Monetary policy, 14
  materials and methods, 14–17
Monetary regulation, 130–133

NARDL test, 116
Nonlinear relationship
  evaluation of hypothesis of, 102–103
  financial depth, 100–101
  financial development, 101
  financial sector, 100
  inflation, 101–102
  parameters for evaluation of hypothesis of, 104–105
Nonlinearity
  dimensional expansion, 71
  and energy investment, 70
  energy investment variables, 72
  financial development on economy, 70
  financial sector on economy, 72–77
  mechanism, 72
  nonlinear influence of financial sector, 71
Nonmonetary inflation, 45–46
Nonrenewable energy resources, 5–6
Nonrenewable resources, 141–142
Nuclear energy, 167, 169
  efficiency, 169–171
Nuclear power plants (NPPs), 167, 171–172

OECD, 145
Open economies, 13–14

Panel cointegration approach, 29–30
Panel data analysis, 115, 118–120
Panel vector auto-regressive model, 30
Pooled mean group (PMG), 115

Qualified workforce, 143–144, 146, 149
Quantitative method, 143–144
Quantitative research method, 60–61

R&D studies, 171
Regression analysis methods, 76, 90–91

Relational screening model, 60–61
Renewable energy (RE), 142, 167
  application with AHP method, 146–148
  CI/RI ratio, 147–148
  contribution of, 142–144
  projects, 2
  resources, 141–142
  skilled labor and energy investments, 144–146
Russian Federation, 100

Silver Spot US Dollar (XAG/USD), 156
Single flash power plants, 4–5
Skilled labor, 144–146
Stimulated employment, 142–143
"Stimulating supply", 42
Supply-side stimulation, 42–43
Survey method, 60–61
Sustainability, 114–115, 141–142
Swamy test (*S*), 119
System Interruption Nuclear Vulnerability Index (SINVI), 170–171

Technological development, 4, 7–8
Text mining, 2, 7
Today's developing zones, 28
Turkey, Energy sector in, 59–63
Turkish economy, 30–31

Unemployment, 142
Unit root, 31–33
Urbanization, 114
US economy, 128

Variance-covariance matrix, 157–158
Vector auto regression model (VAR model), 30, 32
Vector error correction model (VECM), 32–34, 36
Volatility, 155, 157, 169
  portfolio, 159–160

Westerlund panel cointegration test, 121–122