

Curriculum Vitae



Associate Professor Chang Young Ho

Head, Business & Management Minor
School of Business

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Education Qualifications

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| 1999 | Ph.D. in Economics - University of Hawaii at Manoa, U.S.A. |
| 1988 | MA in Economics (Economic Planning) with honor of summa cum laude, Yonsei University, South Korea |
| 1983 | BS in Agriculture (Landscape Architecture), Seoul National University, South Korea |

Academic and Professional Experience

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| 2017 - Present | School of Business, Singapore University of Social Sciences, Singapore |
| 2008 - 2017 | Division of Economics, Nanyang Technological University, Singapore |
| 2008 - 2011 | Energy Studies Institute (Joint Appointment), National University of Singapore, Singapore |
| 2008 - 2010 | S. Rajaratnam School of International Studies (Joint Appointment), Nanyang Technological University, Singapore |
| 2007 - 2007 | S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore |
| 1999 - 2007 | Department of Economics, National University of Singapore, Singapore |
| 1993 - 1995 | Environmental Governance in Asia, the East-West Center, Honolulu, Hawaii, U.S.A. |
| 1985 - 1989 | American Express International Inc., South Korea |
| 1983 - 1985 | Han Yang Corp., South Korea |

Memberships and Professional Activities

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| 2017 - Present | Member, the Editorial Board of the Energy Journal |
| 2022 - Present | Associate Editor, Journal of Environmental Assessment Policy and Management |
| 1999 - Present | Member, International Association for Energy Economics |
| 1991 - Present | Member, American Economic Association |

Consultancy and Executive Experience

Jul 2022 - Nov 2022	Asian Development Bank
Jul 2019 - Jan 2021	Energy Market Authority of Singapore
Apr 2016 - Jun 2016	Asian Development Bank
Feb 2008 - Oct 2009	The Ministry of Trade and Industry and the Ministry of the Environment and Water Resources, Singapore
May 2005 - Oct 2005	The Inter-Agency Task Force on Kyoto Protocol, Singapore
Mar 2005 - Aug 2005	The International Methanol Producers and Consumers Association
Jun 2004 - Aug 2004	Temasek Capital Private Limited, Singapore

Research Interests

- Energy Economics
- Environmental and Resource Economics
- Energy Security
- Education and Sustainability

Selected Publications

Books:

- Yoshino, Naoyuki, Farhad Taghizadeh-Hesary, **Youngho Chang** and Thai-Ha Le (eds.), Energy Insecurity in Asia: Challenges, Solutions, and Renewable Energy, Asian Development Bank Institute, 2020.
- Taghizadeh-Hesary, Farhad, Naoyuki Yoshino, **Youngho Chang** and Aladdin Rillo (eds.), Energy Security in Asia: Diversification, Integration and Policy Implications, World Scientific, 2019.
- Merrill, Michelle Y., Patricia Burkhardt-Holm and Chew Hung Chang, Md Saidul Islam, and **Youngho Chang** (eds.), Education and Sustainability: Paradigms, Policies and Practices in Asia, Routledge, 2017.
- Kimura, Shigeru, **Youngho Chang** and Yanfei Li (eds.), Financing Renewable Energy Development in East Asia Summit Countries: A Primer of Effective Policy Instruments, Economic Research Institute for ASEAN and East Asia, Jakarta, Indonesia, September 2015.
- Caballero-Anthony, Mely, **Youngho Chang** and Nur Azha Putra (eds.), Energy and Non-Traditional Security (NTS) in Asia, Springer, 2012.
- Caballero-Anthony, Mely, **Youngho Chang** and Nur Azha Putra (eds.), Rethinking Energy Security in Asia: A Non-Traditional View of Human Security, Springer, 2012.
- Thomson, Elspeth, **Youngho Chang** and Jae-Seung Lee (eds.), Energy Conservation in East Asia: Towards Greater Energy Security, World Scientific, Singapore, 2010.

Internationally Referred Journal Papers:

- Yong, Soo Keong and **Youngho Chang**, "Emissions Tax and Executive Compensation: A Public-Private Joint Mechanism to Promote Environmental and Energy Management," Singapore Economic Review, Volume 68, No. 2, pp. 355 - 375 (2023).

- Le, Thai-Ha, **Youngho Chang** and Donghyun Park, "Oil price fluctuations and energy commodity prices: An analysis of asymmetric effects," *Singapore Economic Review*, Volume 67, No. 6, pp. 1811 - 1833 (2022).
- **Chang, Youngho** and Han Phoumin, "Curtailed electricity and hydrogen in Association of Southeast Asian Nations and East Asia Summit: Perspectives from an economic and environmental analysis," *International Journal of Hydrogen Energy*, 47 (58): 24548 - 24557 (2022).
- Amin, Sakib Bin, **Youngho Chang**, Farhan Khan and Farhad Taghizadeh-Hesary, "Energy security and sustainable energy policy in Bangladesh: From the lens of 4As framework," *Energy Policy*, Volume 161, Article 112719 (2022).
- **Chang, Youngho**, Dang Thi Quynh Trang, Tsiat Siong Tan and Farhad Taghizadeh-Hesary, "Competition and cooperation in the natural gas market: A game-theoretic demand-base analysis," *Asia Europe Journal*, 19(S1): 21 - 49 (2021).
- Le, Thai-Ha, **Youngho Chang** and Donghyun Park, "Governance, environmental vulnerability, and PM2.5 concentrations: International evidence," *Energy Journal*, 42(6): 147 - 169 (2021).
- **Chang, Youngho**, Qiang Ji and Dayong Zhang, "Green finance and energy policy: Obstacles, opportunities, and options," *Energy Policy*, Volume 157, Article 112497 (2021).
- **Chang, Youngho** and H. Phoumin, "Harnessing wind energy potential in ASEAN: Modelling and policy implications," *Sustainability* 13(8): 4279 (2021).
- Zhang, Dongyang, Muhammad Mohsin, Abdul Khaliq Rasheed, **Youngho Chang** and Farhad Taghizadeh-Hesary, "Public Spending and Green Economic Growth in BRI Region: Mediating Role of Green Finance," *Energy Policy*, Volume 153, Article 112256 (2021).
- Sato, Masayuki, Ipppei Aoshima and **Youngho Chang**, "Connectedness to Nature and the Conservation of Urban Ecosystem: Perspectives from the Valuation of Urban Forests," *Forest Policy and Economics*, Volume 125, Article 102396 (2021).
- Taghizadeh-Hesary, Farhad, Ehsan Rasoulinezhad, Naoyuki Yoshino, **Youngho Chang**, Farzad Taghizadeh-Hesary and Peter Morgan, "The energy-pollution-health nexus: A panel data analysis of low- and middle-income Asian countries," *Singapore Economic Review*, 66(2): 435 - 455 (2021).
- Taghizadeh-Hesary, Farhad, **Youngho Chang**, Naoyuki Yoshino and Peter Morgan, "Energy insecurity, renewable energy and economic growth," *Singapore Economic Review*, 66(2): 313 - 322 (2021).
- **Chang, Y.**, Z. Fang and S. Hamori, "Human capital and energy: A driver or drag for economic growth," *Singapore Economic Review*, 65(3): 683 - 714 (2020).
- Wong, Tiffany T.Y., Y. Xu and **Y. Chang**, "Cross-boundary air pollution control under "One Country, Two Systems": The perspective from Hong Kong-Guangdong collaboration," *Singapore Economic Review*, 65(3): 601 - 625 (2020).
- Malik, Sadia, Maha Qasim, Hasan Saeed, **Youngho Chang** and Farhad Taghizadeh-Hesary, "Energy security in Pakistan: Perspectives and Policy Implications from a Quantitative Analysis," *Energy Policy*, Volume 144, Article 111552 (2020).
- Yin, Di and **Youngho Chang**, "Energy R&D investments and emissions abatement policy," *Energy Journal*, 41(6): 133 - 156 (2020).

- **Chang, Youngho** and Johnny Heng, "Mutual funds: Pathways to promoting sustainable green finance in Singapore," *Nomura Journal of Asian Capital Markets*, 4(2): 35 - 39 (2020)
- Cai, Xiao Jing, Zheng Fang, **Youngho Chang**, Shuairu Tian, Shigeyuki Hamori, "Co-movements in commodity markets and implications in diversification benefits," *Empirical Economics*, 58: 393 - 425 (2020).
- Le, Thai-Ha, **Y. Chang** and Donghyun Park, "Renewable and nonrenewable energy consumption, economic growth, and emissions: International evidence," *Energy Journal*, 41(2): 45 - 64 (2020).
- Fang, Z., **Y. Chang** and S. Hamori, "Energy and human capital: A driver or drag for economic growth," *Singapore Economic Review*, 1750016 (2017).
- **Chang, Y.**, Z. Fang and S. Hamori, "Volatility and causality in strategic commodities: Characteristics, myth and evidence," *International Journal of Economics and Finance*, Vol. 9, No. 8: 162 - 178 (2017).
- Daksiya, V., H.T. Su, **Y. Chang** and Edmond Y. M. Lo, "Incorporating socio-economic effects and uncertain rainfall in flood mitigation decision using MCDA," *Natural Hazards*, May 2017, 87(1): 515 - 531 (2017).
- Le, T.-H, **Y. Chang** and D. Park, "Energy demand convergence in APEC: An empirical analysis," *Energy Economics*, 65: 32 - 41 (2017).
- **Chang, Y.** and Z. Fang, "Efficient, equitable and sustainable energy policy in a small open economy: Concepts and assessments," *Energy Policy*, 105: 493 - 501 (2017).
- Le, T.-H. and **Y. Chang**, "Dynamics between Strategic Commodities and Financial Variables: Evidence from Japan," *Resources Policy*, 50: 1 - 9 (2016).
- Kimura, F., S. Kimura, **Y. Chang** and Y. Li, "Financing renewable energy in the developing countries of the East Asia Summit region: Introduction," *Energy Policy*, 95: 421 - 426 (2016).
- **Chang, Y.**, Z. Fang and Y. Li, "Renewable energy policies in promoting financing and investment among the East Asian Summit countries: Quantitative assessment and policy implications," *Energy Policy*, 95: 427 - 436 (2016).
- Fang, Z. and **Y. Chang**, "Energy, human capital and economic growth in Asia Pacific countries: Evidence from a panel cointegration and causality analysis," *Energy Economics*, 56, 177 - 184 (2016).
- Le, T.-H. and **Y. Chang** and D. Park, "Trade openness and environmental quality: International evidence," *Energy Policy*, 92: 45 - 65 (2016).
- Tongsopt, S., N. Kittner, **Y. Chang**, A. Aksornkij and W. Wangjiraniran, "Energy security in ASEAN: A quantitative approach for sustainable energy policy," *Energy Policy*, 90: 60 - 72 (2016).

Book Reviews:

- **Chang, Y.**, *Natural Gas in Asia: The Challenges of Growth in China, India, Japan and Korea* edited by Jonathan Stern (Oxford University Press, Oxford, 2nd edition, 2008), *Energy Journal*, 32(1): 234 - 238 (2011).
- **Chang, Y.**, *Crude Power: Politics and the Oil Market* by Oystein Noreng (I.B. Tauris, London, 2002), *Energy Policy*, 32: 1036 - 1038 (2004).

Book Chapters:

- Taghizadeh-Hesary, Farhad, Naoyuki Yoshino, Ehsan Rasoulinezhad and **Youngho Chang**, “Transmission of Oil Price Fluctuations Through Trade Linkages,” in *The Handbook of Energy Policy*, edited by Farhad Taghizadeh-Hesary and Dayong Zhang, Springer, Singapore (2023), pp. 935 - 956.
- **Chang, Youngho** and Han Phoumin, “Bilateral Electricity Trade between Singapore and Malaysia: Economic Efficiency and Welfare Implications,” in *Electricity Market Reforms in ASEAN, China, India, and Japan*, edited by Han Phoumin, Farhad Taghizadeh-Hesary, Fukunari Kimura and Rabindra Nepal, World Scientific (2023), pp. 145 - 166.
- **Chang, Youngho** and Christopher Toh Meng Sung, “Pandemic and Energy Transition: Perspectives on the New Normal in the Energy Sector in the ASEAN Region,” in *COVID-19 New Normal*, edited by Linda Law and Lee Yew Haur, World Scientific (2023), pp. 33 - 57.
- **Chang, Youngho** and Farhad Taghizadeh-Hesary, “Infrastructure Needs and Cooperation in CAREC Countries: Perspectives from a Pan-Asian Natural Gas Trade Model,” in *Unlocking Private Investment in Sustainable Infrastructure in Asia*, edited by Bhajan Grewal, Nella Hendriyetty, Iskandar Abdullaev, Chul Ju Kim, Naoyuki Yoshino and Eisa Khan Ayoob Ayoobi, Routledge and Asian Development Bank Institute (2023), pp. 64 - 71.
- Taghizadeh-Hesary, Farhad, Naoyuki Yoshino, Ehsan Rasoulinezhad and **Youngho Chang**, “Transmission of Oil Price Fluctuations Through Trade Linkages,” in *the Handbook of Energy Policy*, edited by Farhad Taghizadeh-Hesary and Dayong Zhang, Springer, Singapore (2022). https://doi.org/10.1007/978-981-16-9680-0_38-1.
- **Chang, Youngho** and Han Phoumin, “Curtailed Electricity Surplus from Renewables for Hydrogen: Economic and Environmental Analysis,” in *Hydrogen Sources from Renewables and Clean Energy: A Feasibility Study of Achieving Large-scale Demonstration*, edited by Yanfei Li, Han Phoumin and Shigeru Kimura, Economic Research Institute for ASEAN and East Asia (2021), pp. 225 - 242.
- Yin, Di and **Youngho Chang**, “R&D Investments in Energy Efficiency, Economic Impact, and Emissions Abatement,” in *Energy Efficiency Financing and Market-Based Instruments*, edited by Yang Liu, Farhad Taghizadeh-Hesary and Naoyuki Yoshino, Springer Nature and Asian Development Bank Institute (2021), pp. 77 - 101.
- **Chang, Youngho** and Wai Mun Kock, “Credit Guarantee Scheme and Startup Businesses: Financial Pipelines and Successful Startups in Southeast Asia,” in *Investment in Startups and Small Business Financing*, edited by Farhad Taghizadeh-Hesary, Naoyuki Yoshino, Chul Ju Kim, Peter J. Morgan and Daehee Yoon, Asian Development Bank Institute and World Scientific (2021), pp. 265 - 302.
- **Chang, Youngho**, “Integrated Regional Energy Markets: Principles and Prospects,” in *Economic Integration in Asia and Europe: Lessons and Policies*, edited by Sang Chul Park, Chul Ju Kim, Farhad Taghizadeh-Hesary and Pitchaya Sirivunnabood, Asian Development Bank Institute (2021), pp. 621 - 637.

- **Chang, Youngho** and Han Phoumin, “Harnessing Wind Energy Potential in ASEAN: Principles, Perspectives and Policy Implications,” in *Energy Sustainability and Climate Change in ASEAN*, edited by Han Phoumin, Farhad Taghizadeh-Hesary, Fukunari Kimura and Jun Arima, Economic Research Institute for ASEAN and East Asia (ERIA) and Springer (2021), pp. 261 - 276.
- Chow, Dawn Yi Lin and **Youngho Chang**, “State-Owned Enterprises in Singapore: Performance and Policy Recommendations,” in *Reforming State-Owned Enterprises in Asia: Challenges and Solutions*, edited by Farhad Taghizadeh-Hesary, Naoyuki Yoshino, Chul Ju Kim and Kunmin Kim, Asian Development Bank Institute and Springer Nature (2021), pp. 275 - 295.
- Yin, Di and **Youngho Chang**, “Applied General Equilibrium in Environmental Decision-Making,” in *Sustainability and Environmental Decision Making*, edited by Euston Quah and Renate Schubert, Springer Nature (2021), pp. 187 - 215.
- Yoshino, Naoyuki, Farhad Taghizadeh-Hesary, **Youngho Chang** and Thai-Ha Le, “Introduction,” in *Energy Insecurity in Asia: Challenges, Solutions, and Renewable Energy*, edited by Naoyuki Yoshino, Farhad Taghizadeh-Hesary, Youngho Chang and Thai-Ha Le, Asian Development Bank Institute (2020), pp. 1 - 8.
- Malik, Sandia, Maha Qasim, Hasan Saeed, **Youngho Chang** and Farhad Taghizadeh-Hesary, “Energy Insecurity in Pakistan: A Quantitative Approach to Sustainable Energy Policy,” in *Energy Insecurity in Asia: Challenges, Solutions, and Renewable Energy*, edited by Naoyuki Yoshino, Farhad Taghizadeh-Hesary, Youngho Chang and Thai-Ha Le, Asian Development Bank Institute (2020), pp. 248 - 275.
- **Chang, Youngho**, “Renewable Energy Integration, System Flexibility and Decarbonization: An Energy, Economic, Social and Environmental Nexus,” in *Energy Sustainability and Development in ASEAN and East Asia*, edited by Phoumin Han, Farhad Taghizadeh-Hesary and Fukunari Kimura, Routledge (2020), pp. 46 - 57.
- Taghizadeh-Hesary, Farhad, Naoyuki Yoshino, **Youngho Chang** and Aladdin D. Rillo “Introduction,” in *Energy Security in Asia: Diversification, Integration and Policy Implications*, edited by Farhad Taghizadeh-Hesary, Naoyuki Yoshino, Youngho Chang and Aladdin D. Rillo, World Scientific (2019), pp. v - xiii.
- Sarangi, Gopal K., Arabinda Mishra, Farhad Taghizadeh-Hesary, **Youngho Chang** and Juswanto Wawan, “India’s Electricity Sector: Diversification, Energy Security and Sustainability,” in *Energy Security in Asia: Diversification, Integration and Policy Implications*, edited by Farhad Taghizadeh-Hesary, Naoyuki Yoshino, Youngho Chang and Aladdin D. Rillo, World Scientific (2019), pp. 151 - 182.
- **Chang, Y.** and Cedric Rimaud “Small and Medium-sized Enterprises’ Financing in Singapore,” in *Unlocking SME Finance in Asia: Roles of Credit Rating and Credit Guarantee Scheme*, edited by Naoyuki Yoshino and Farhad Taghizadeh-Hesary, ADBI, OECD and Routledge (2019), pp. 316 - 336.
- **Chang, Y.** “Green Finance in Singapore: Barriers and Solutions,” in *Handbook of Green Finance: Energy Security and Sustainable Development*, edited by Jeffrey Sachs, Woo Wing Thye, Naoyuki Yoshino and Farhad Taghizadeh-Hesary, ADBI and Springer (2019), pp. 659 - 674.

- **Chang, Y.**, Dang Di Trinh Trang and Michelle Y. Merrill “Economics approaches to sustainability: Methods and applications,” in *Education and Sustainability: Paradigms, Policies and Practices in Asia*, edited by Merrill, Michelle Y., Patricia Burkhardt-Holm, Chew Hung Chang, Md Saidul Islam and Youngho Chang, Routledge (2017), pp. 44 - 76.
- Gozgor, G., **Y. Chang** and M. H. Bilgin “Crude oil price shocks and macroeconomic performances in the ASEAN economies,” in *Financial Environment and Business Development 2017, Proceedings of the 16th Eurasia Business and economics Society Conference*, edited by M.H. Bilgin, H. Danis, E. Demir and U. Can (2017), pp. 253 - 265.
- Li, Y., **Y. Chang**, F. H. Chew and S. Sharma “Business Model and Market Design for ASEAN Electricity Market Integration: Principles, Practicalities, and Conditions for Success,” in *Achieving an Integrated Electricity Market in Southeast Asia: Addressing the Economic, Technical, Institutional, and Geo-political Barriers*, edited by Shigeru Kimura and Yanfei Li, Economic Research Institute for ASEAN and East Asia, Jakarta, Indonesia, December (2016), pp. 59 - 108.
- **Chang, Y.**, W. X. Ang, J. Y. Chua and J. Lee “Energy market integration in ASEAN: Economics, technology and welfare implications,” in *Prospects and Challenges of Connectivity and Trading in Power and Energy: A Regional and International Perspective*, edited by Syed Munir Khasru, the Institute for Policy, Advocacy and Governance (IPAG), Dhaka, Bangladeshi (2016), pp. 110 - 117.
- **Chang, Y.**, “Energy and Environmental Policy,” in *Singapore’s Economic Development: Retrospection and Reflections*, edited by Linda Lim, World Scientific, Singapore (2016), pp. 299 - 319.

Editorial Activities

- Guest Editor, “Energy Insecurity, Renewable Energy and Economic Growth,” *Singapore Economic Review* (February 2019 - March 2020).
- Managing Guest Editor, “Green Finance and Energy Policy: Obstacles, Opportunities and Options,” *Energy Policy* (June 2020 - August 2021).
- Managing Guest Editor, “Financing renewable energy in the developing countries of the East Asia Summit region,” *Energy Policy*, (February - August 2016).
- Managing Guest Editor, “Volatility of Energy Prices and Economic Performances: Implications on Economic Growth and Energy Security,” *Energy Policy* (June 2018 - February 2019).