




ESHETE, Zerayehu Sime

PhD in ECONOMICS

CONTACT

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SKILLS

- Data Analysis with Statistical software (STATA, EVIEWS, etc.)
- General Equilibrium Modeling, CGE with GAMS software
- System Dynamic Modeling with Vensim Software
- Cross-sectional Econometrics
- Time-series Econometrics
- Panel Data Modeling

EDUCATION

- PhD in Economics, 2014, University of Nairobi
- MSc in Economics, 2006, Addis Ababa University
- BA Degree in Economics, 2004, Addis Ababa University

PROFILE

Zerayehu Sime is an Associate Professor of Economics at Addis Ababa University, with expertise in development economics, macroeconomics, poverty and inequality, food security, industrial policy, and applied econometrics. His research examines economic development, innovation, labor productivity, governance, and household welfare in Ethiopia and Sub-Saharan Africa. He possesses advanced skills in Multi-Shock Index (MSI) construction using parametric and non-parametric methods, the analysis of household food security outcomes, and General Equilibrium (CGE) modeling with GAMS and System Dynamics modeling, employing quantitative methodologies to inform evidence-based policy and facilitate sustainable economic growth.

PROFESSIONAL EXPERIENCE

Associate Professor in Economics, Department of Economics, AAU, Ethiopia
July 2021 – Present:

- **Advanced Econometrics I & II, PhD Program in Economics, Economics Department**
- **Advanced Econometrics, PhD Program, Accounting & Finance Department**
- **Multivariate Statistics, PhD Program, Accounting & Finance Department, and Management Department**
- Economic Modelling, I: General Equilibrium Model and System Dynamic Modelling, MSc Program, Department of Economics
- Economics of Asset Pricing, MSc Program in Financial Economics Program, Department of Economics
- Advising PhD and MSc Students in the area of Development and Environment
- Member of Economic Modelling Hub, a collaborative Project with the World Resource Institute (WRI) Project focused on Green Economy
- Member of IPORA Project, Interdisciplinary Policy-Oriented Research on Africa, a joint project among Ethiopia, Cote d'Ivoire, France, and Morocco, focused on Economics, Food System, and Governance.

Editor-in-Chief of the Journal of Business & Economics, College of Business and Economics, June 2021 – December 2025

- Be in charge of the Journal Office, head of editorial board, managing scientific works
- Recommend high-quality papers to be published in EJBE, achieve timely and regular publication of EJBE, help review papers submitted or recommend referees to EJBE,
- Promote EJBE during conferences of the same fields and other public activities, convene meetings when necessary.
- Publish scientific works in article forms, including all backlogs, over the period 2017 to 2025, June.

Head Department of Economics, Addis Ababa University, Ethiopia
October 2019 – September 2021

- Chairing all the academic and administrative duties related to the Economics department at Addis Ababa University.
- Member of Academic Commission
- Member of Management Council
- Member of African Economic Research Consortium (AERC) CMAP and CPP advisory board
- PI of Sweden International Development Cooperation Agency (Sida) Project, focused on development and Environment, in collaboration with two Swedish Universities, JIBS and Gothenburg.

Assistant Professor of Economics, Addis Ababa University, Ethiopia
July 2015 – October 2019

- Advanced Macroeconomics II, MSc Program, Department of Economics
- Advanced Econometrics I & II, MSc Program, Department of Economics
- Econometrics, Undergraduate Program, Department of Economics
- Advising MSc, and Undergraduate Students in the area of development and macroeconomics.
- Chair of Staff Development and Promotion Committee.

Founder of Yom Institute of Economic Development PLC, YIED, Addis Ababa,
September 2014 to Present:

- Provide graduate program of Development Economics, Project Planning & Management, and Masters of Business Administration
- Offer community services, research projects, and a range of training activities

**Principal Researcher, Commercial Bank of Ethiopia, Addis Ababa, Ethiopia
September November 2007 to December 2010:**

- Undertake various research projects on macroeconomic performance, financial development and sustainable development program,
- Forecast economic and market development for sustainable financial sector development, assessing the overall and sectoral development objectives, strategies and policies of the country and identify their impact on the bank.
- coordinate research studies with corresponding qualitative and quantitative methods, conduct surveys, reviews, and conduct economic analysis on macroeconomic performance and financial growth.
- Conduct regional potential survey to expand outreach, understanding and acceptability of the banking service in Ethiopia. There were areas with potential regarding mobilization of deposits, credit, market and branch expansion. The survey unveiled rural Ethiopia root cause issues of outreaching the bankable society and monetization of the economy.

PhD Examination Across Different University (Local and Abroad): Selected

- Household Food Security in Ethiopia: A Comprehensive Analysis on Drivers, Policies and Governance
- Rural Livelihood Diversification and Its Contribution to Child Poverty

Reduction: The Case of West Arsi Zone, Arsi Negele Woreda, Oromia Region

- Impact Of Urban Expansion On Income Of Evicted Farmers And Their Perception Towards Land Eviction In Peri-Urban Areas Of Amhara Regional State, Ethiopia
- Essay on Efficiency, Input Use under Market Frictions and Resource Misallocation in African Manufacturing Firms
- Climate Change, Institutional Quality, Economic Growth, and Poverty Vulnerability in Sub-Saharan Africa
- The Link Between Foreign Aid And Economic Growth In Africa: A Dynamic Panel Data Approach
- Production Transformation and Sectoral Growth Drive: A Comparative Exploration on Sub-Saharan Africa and Asian Economies
- Essays on Innovations, Firm Productivity, and Employment in The Context of Africa

PhD Advisorship

- Household Level Non-Monetary Poverty in Ethiopia and its Driving Factors: a Multidimensional Approach with Panel Estimation
- The Impact of Sector-Specific Industrial Policy on Manufacturing Firm Performance: Quasi-experimental Evidence from Ethiopian Chemical Industries
- Spatial-Temporal Dynamics of Climate Variability, Armed Conflict, and Child Malnutrition in Sub-Saharan Africa: A Longitudinal Analysis.
- Spatial-Temporal Dynamics and Feedback Loops in the Climate–Conflict–Child Malnutrition Nexus: Evidence from Sub-Saharan Africa
- Economic and Environmental Efficiency of Countries in Africa: A Spatial Stochastic Frontier Analysis
- Financial Inclusion’s Pathways to Alleviate Multidimensional Energy Poverty in Ethiopia: A Generalized SEM Approach

RESEARCH, PROJECT, AND TRAINING

Researcher, PI for the project, Stakeholder Engagement and Governance in Ethiopia Nutrition Policy: Enhancing Resilient Nutrition Security, and Environment in Ethiopia, Interdisciplinary Policy-Oriented Research on Africa (IPORA), with core partners being Universities of Bordeaux (France), Addis Ababa (Ethiopia), Abidjan (Côte d'Ivoire), and Rabat (Morocco), plus Sciences Po Bordeaux and IRD

- Capture a snapshot of the stakeholders and to develop an understanding of how they interact with each other to achieve nutrition outcomes.
- Identify influential in shaping nutrition related program and policy decisions
- Examine a country's strengths and weaknesses in various aspects of nutrition governance?

Researcher, the International Food Policy Research Institute, Washington, D.C, conduct research on household vulnerability to compounded shocks and food insecurity using the Multi-Shock Index (MSI) methodology and FAO’s Data in Emergencies Monitoring (DIEM) dataset, September 2025 to December 2025

- Specifically, the study seeks to construct non-parametric Multi-Shock Index (MSI) using additive and weighted methods and to develop a parametric MSI based on regression-based weights to reflect the relative severity of different shocks while accounting for missing data and measurement uncertainty.
- The study further analyzes the relationship between multiple shocks and household food security outcomes, using the Food Consumption Score (FCS), the Livelihood Coping Strategy Index (LCSI), and the Reduced Coping Strategy Index (RCSI)
- Identifying High-Risk Households and assessing differences in reliance on livelihood-based versus food-based coping mechanisms

Education Finance Analyst, Project of World Bank & Ministry of Education, Frontier Research PLC, March 2025 – August 2025

- Analyze budgeted and non-budgeted (NGOs, community contributions, donations) finance allocations across different levels of the education system (pre-primary, primary, secondary, tertiary)
- Elaborate resource projections, cost simulations and financing scenarios for developing self-sustaining national education sector plans and policies
- Develop the Education Trust Fund Development Strategy, in collaboration with the international consultant and education experts
- Analyze the equity, efficiency and effectiveness of the education financing system in Ethiopia using financing frameworks and models of UNESCO

Researcher and Trainer, GIZ, Providing Capacity Building Training for Five regions, Consolidating Primary Data and Assess Readiness for Ethiopian firms African Continental Free Trade Area (AfCFTA)

- Designing and Delivering Capacity-Building Training: Develop training programs tailored to Ethiopian firms in five regions to enhance their understanding of AfCFTA protocols, market access, and compliance requirements.
- Consolidating Primary Data: Collect and analyze data from firms to assess their readiness for AfCFTA participation, identifying gaps in capacity, infrastructure, and competitiveness.
- Assessing Readiness: Evaluate firms' ability to leverage AfCFTA opportunities, focusing on areas like trade in goods, rules of origin, and digital trade.
- Providing Recommendations: Offer actionable insights to improve firms' competitiveness and compliance with AfCFTA requirements.

Industrial Development Expert, International Economics Consulting Ltd, Mauritius, Sponsored by GIZ & Chamber of Commerce: November 2021 – April 2022

- Conduct a survey On How the Private Sector in Ethiopia Can Benefit from African Continental Free Trade Area (AfCFTA)
- Identify opportunities and challenges of joining AfCFTA on specific sectors, including SMEs and Women Business Owners (WBO);
- Identify sectors with export potential to the AfCFTA market including the potential areas of export for SMEs and women with the identified methodology; and Identify support needs by the sectors to exploit their full potential

Trainer, Planning and Development Commission, sponsored by World Bank, Addis Ethiopia:

November 2020 - December 2020

November 2019 – December 2019

- Mainstreaming SDG in the sectoral plan to line ministries of Ethiopian government about the implementation and
- Application of social accounting matrix, multiplier analysis, and CGE Modelling training in the preparation of government 10 years plan

PI and researcher, Addis Ababa Chamber of Commerce, Addis Ababa, Ethiopia: October 2020 – December 2020

- Project on reduction of public debt and deficit to examine enormous government debt and deficit in crowding out the role of the private sector

- A Project on Determinants of Competitiveness of Private Firms to measure it and establish the level of competitiveness in Ethiopia by sectors, period, institutions (Public and Private) with some comparators in Africa (Kenya, Tanzania, Uganda and Rwanda)

Researcher, A collaboration of Yom Institute of Economic Development, and University of Bonn (CDR): November 2019 – December 2020

- Agricultural Innovation Companion Research Programme, whose mission is to contribute to sustainable agricultural development and food and nutrition security in India and Africa.
- Supported conduct of Task-1 of Programme, i.e. Research on the linkage between firm level innovation, productivity growth and employment in Africa.

PI of the Project on Green Tax, Addis Ababa City Environmental Protection Office, Addis Ababa, Ethiopia: May 2019 – December 2020

- Designed green tax on industrial effluents discharge for Addis Ababa city administration.
- Current state of the manufacturing sector and industrial water pollution in the city, and stipulated appropriate industrial wastewater discharge tax.

Researcher, a project of Need Assessment of the SDG, Vivid Economics Consultant, UNDP, England: November 2018 – December 2020

- Set out the SDG baseline and targets of SDGs indicators
- Identify the gaps and list out the interventions,
- Estimate the required cost of SDG and financing SDG
- Conduct the macroeconomic implications and economy wide effects of the required financing strategies using PEP CGE modelling with some micro simulations.

PI, a Project of SAM-CGE modelling and Macro econometric modelling, Horn Economic and Social Policy Institute (HESPI), IGAD: May 2018 – February 2019

- Construct a regional Social Accounting Matrix (SAM) for IGAAD: Ethiopia, Sudan, Uganda and Kenya economic performance.
- Build a Computable General Equilibrium Model for the IGAD region, taking Ethiopia, Sudan, Uganda and Kenya as a base.
- Building Macroeconometric model for 4 countries of IGAD
- Produce comparative macroeconomic analysis

Trainer, Data Analysis & SAM-CGE Modeling, Public Universities (Debre Markos, Mizan-Tepi, and Haramaya): March 2018 – June 2018

- Providing training on advanced training in Scientific Research Method and Linear and Non-linear econometric model using the STATA Software Application to the Academic Staff of Mizan Tepi University and Debre Markos University.
- Advanced training given to Haramaya University on Social Accounting Matrix (SAM), SAM Multiplier Analysis, GAMS, Static and dynamic Computable General Equilibrium (CGE) to Haramaya University: The training given in a research capacity building program titled Building Ethiopian's Research Capacity in Economics and Agribusiness (BERCEA).

PI of the Project, Industrial Park and systematic resource allocation across different sectors, Partnership for Economic Policy (PEP), Nairobi, Kenya January 2018 – December 2019

- Systematic resource allocation across different sectors on the Ethiopian economy, income inequality and poverty status of households.
- Revise the Ethiopian Social Accounting Matrix 2011 and 2010 Household Income and Expenditure data are used.
- Allocating resources to industrial parks in order to enhance production by priority activities affect economic growth, poverty, and income inequality.

Researcher, exploring Potentials of the Bamboo, a Collaboration of University of Hohenheim and YIED: November 2014 – December 2018

- Project of exploring Potentials of the Bamboo sector and value Chain: for Employment Generation and Food Security in Ethiopia: An Institutional Analysis of Bamboo-based Value-Web.
- Project, covered the Assosa region and Gojjam Zone, was initiated by the Forum for Agricultural Research in Africa (FARA) and implemented jointly by the University of Hohenheim, Germany and Yom Institute of Economic Development.

Researcher, exploring Potentials of the Bamboo, a Collaboration of SIDA and EDRI: November 2015 – December 2015

- Environment for Development (EfD) initiative and SIDA sponsored research study that participated in conducting a research in carrying out an inquiry into driving forces affecting the environment as well as CO2 emissions
- Utilize the reformulated stochastic version of IPAT model, i.e. stochastic estimation of Impacts by Regression on Population, Affluence, and Technology (STIRPAT) model is used. And, the project also looked into the economy wide impact of CO2 emission through productivity through CGE modelling.

PUBLICATIONS

- Zerayehu S., How Export Orientation Shapes Internal R&D Practices in African Firms: A Recursive Bivariate Copula Estimation, **under review**: Journal of Industry, Competition and Trade.
- Zerayehu S, Firm-Level Analysis of Translation and Complementarity Practices for Internal and External R&D Activities in Sub-Saharan African Countries, **under review**: Ethiopian Journal of Development Research
- Zerayehu S. And Getaw T. (2025), The impact of firm-level innovation on labor productivity and employment in selected African countries. *J Innov Entrep* 14, 9 (2025). <https://doi.org/10.1186/s13731-024-00450-z>
- Gashe, K., Sime, Z., & Mada, M. (2024). Intellectual capital and total factor productivity. *Cogent Economics & Finance*, 12(1). <https://doi.org/10.1080/23322039.2024.2328484>, <https://www.tandfonline.com>
- Gashe, K., Sime, Z., & Mada, M. (2024). Intellectual capital and economic growth: evidence from some selected countries. *Cogent Economics & Finance*, 12(1). <https://doi.org/10.1080/23322039.2024.2330429>, <https://www.tandfonline.com>
- Tufa, M., Söderbom, M. & Sime, Z. The Impact of Sector-Specific Industrial Policy on Manufacturing Firm Performance: Quasi-experimental Evidence from Ethiopian Chemical Industries. *J Ind Compet Trade* 23, 363–397 (2023). <https://doi.org/10.1007/s10842-023-00408-z>
- Mogess, Y. K., Eshete, Z. S., & Alemaw, A. T. (2023). Economic growth and poverty reduction: Evidence from Sub-Saharan Africa (SSA) countries. *Journal of Poverty & Public Policy*, Volume 15, Issue 1, Page 1–28. <https://doi.org/10.1002/pop4.364>,
- Abebaw Abibo, Mammo Muchie, Zerayehu Sime & Wondemhunegn Ezezew (2022), Factors affecting the innovation ecosystem in public universities in Ethiopia, *African Journal of Science, Technology, Innovation and Development*, <https://www.tandfonline.com/doi/abs/10.1080/20421338.2022.2043809>

- Kidist Solomon and Zerayehu Sime (2022), Investigating the Effect of Piece-Rate and Time-Rate Payment Systems on Promoting Wage and Production: The Case of the Garment Sector in Bole-Lemi Industrial Park, *Ethiopian Journal of Business and Economics*, EJBE Vol.: 12, No.: 1, Doi: <https://dx.doi.org/10.4314/ejbe/v12i1.4> p
- Dablin Mpuuga and Zerayehu Sime Eshete (2022), Uncovered Silent Killers: The Prevalence of Non-Communicable Diseases and Health Insurance Coverage in Uganda, *African Journal of Economic Review*, Volume 10(1), January, 2022 <https://www.ajol.info/index.php/ajer/article/view/219344>
- Zerayehu Sime Eshete (2020), China's Unprecedented Move and Its Repercussion on African Economies: Empirical Evidence from Ethiopia, Chapter 14 in *A Multidimensional Economic Assessment of Africa* edited by Jacob Wood and Olivier Habimana, Springer Nature. (Book Chapter)
- Zerayehu Sime Eshete and Bisrat Legesse Kidane (2020), Reassessing the Impact of Financial Services on Urban Manufacturing Firms: An Impact Evaluation Method in Ethiopia, *Journal of Sustainable Development*, Volume 13, No. 4.
- Bizuayehu Gossa Tadesse and Zerayehu Sime Eshete (2020), Examining Households Willingness to Pay for Reliable and Sustainable Urban Water Supply Using Interval Regression Analysis: The Case of Addis Ababa, *Journal of Development AAU. Ethiopian Journal of Development Research (EJDR)*, Volume 42, College of Development Studies, Addis Ababa University.
- Workneh, M.A., Eshete, Z.S. Household Level Non-Monetary Poverty in Ethiopia and its Driving Factors: a Multidimensional Approach with Panel Estimation. *Soc Indic Res* 154, 145–168 (2021). <https://doi.org/10.1007/s11205-020-02569-4>
- Zerayehu S., (2020), The Political Economy of Capital Flight:- Good Governance and Capital Flight in East African Community, *International Journal of African and Asian Studies*, *International Journal of Economic Development*, Volume 14, Number 1, pp. 1-31, 2020
- Workneh, Migbaru Alamirew and Eshete, Zerayehu Sime, Nexus between Government Effectiveness and Living Condition in Sub-Saharan Africa (April 29, 2020). Available at SSRN: <https://ssrn.com/abstract=3586339>
- Kindenew Mihrete and Zerayehu Sime (2019), The Impact of Remittances on The Welfare of Recipient Households in Addis Ababa: An Endogenous Switching Regression Model, Addis Ababa University, *Ethiopian Journal of Business and Economics*, EJBE Vol.9, No. 1, Doi: <http://dx.doi.org/10.4314/ejbe.v8i1.2>,
- Workneh, Migbaru Alamirew and Eshete, Zerayehu Sime and Figari, Francesco, Gender Inequality, Governance and Poverty in Sub-Saharan Africa (October 12, 2019). Available at SSRN: <https://ssrn.com/abstract=3468672> or <http://dx.doi.org/10.2139/ssrn.3468672>
- Solomon Tsehay Feleke & Alemnesh Gebreselassie & Zerayehu Eshete & Asmayit Tekeste & Lulit Mitik Beyene, (2019), "Resource Allocation across Industrial Sectors, Growth, Poverty, and Income Inequality in Ethiopia: A Macro-Micro Approach," Working Papers MPIA 2019-16, PEP-MPIA.
- Aragaw Demessie, Zerayehu Sime (2018), The Quest for Firms' Productivity in Strategic Industries in Ethiopia: Evidences from Growth and Transformation Plan, Addis Ababa University, *Ethiopian Journal of Business and Economics*, EJBE Vol.8, No. 2, Doi: <http://dx.doi.org/10.4314/ejbe.v8i2.2>,
- Nurhussen Ahmed, Zerayehu Sime Eshete (2018), **The Impact of Export Volatility on the Growth of Ethiopia: A GARCH Model Approach**, Addis Ababa University, *Ethiopian Journal of Business and Economics*, EJBE Vol.8, No. 1, Doi: <http://dx.doi.org/10.4314/ejbe.v8i1.2>, P-ISSN: 2311-9772, eISSN: 2410-2393, Available online: <https://ejol.aau.edu.et/index.php/ejbe> and <https://www.ajol.info/index.php/ejbe>
- Dawit Woubishet Mulatu and Zerayehu Sime Eshete (2018), The Driving Forces Of Co2 Emissions And Its Responsiveness In Ethiopia: An Integrated Analysis Using Vector Error Correction Model, *Journal of Sustainable Development in Africa* (Volume 20, No.3, 2018)ISSN: 1520-5509
- Habtamu Tedane and Zerayehu Sime (2017), The Impact of Tax Incentives on Sectoral Economic Growth in Ethiopia, Addis Ababa University, *Ethiopian Journal of Business and Economics*, EJBE Vol.7, No. 1, Doi: <http://dx.doi.org/10.4314/ejbe.v7i1.3>,

- Zerayehu S. and Peter Kiko Kimuyu , (2016) "In search of structural change surplus and perpetual growth in Ethiopia: Examining alternative sectoral (Agricultural TFP, Industrial TFP and Service TFP) growth options, an application of recursive dynamic CGE model", African Journal of Economic and Management Studies, Vol. 7 Issue: 2, pp. 241 – 255
- Zerayehu, E., Dawit W., and Tsegaye G. (2016), CO2 emissions, agricultural TFP and Welfare of Household in Ethiopia using CGE Model”, Environment for Development Center, Discussion Paper Series, Ef D DP 16- 08
- Zerayehu S. Eshete, and Kagne W. Teshome (2015), Performance, Challenges and Prospects of Real Estate Financing in Addis Ababa: Micro- and Macro Economic Implications, www.publicscienceframework.org/journal/paperInfo/ajefm?paperId=118
- Zerayehu S., Kagne W., and Teshome W., (2013) Competition in Ethiopian Banking Industry using cross section modeling Econometrics, a joint paper African Journal of Economics Vol. 1 (5), pp. 176-190, December, 2013.