



PHILIPPINE ECONOMIC SOCIETY

# 62<sup>nd</sup> ANNUAL MEETING AND CONFERENCE

Traversing Innovative Pathways  
for Economic Resilience, Inclusion,  
and Localization in the Philippines

*7-8 November 2024*

*Novotel Manila Araneta City, Quezon City*



## **Traversing Innovative Pathways for Economic Resilience, Inclusion, and Localization in the Philippines**

As the Philippines embarks in its economic journey towards attaining upper middle-income class status, it faces a myriad of challenges, ranging from health and education inequalities, to persistent poverty and governance deficits, exacerbated by geographic disparities. The urgent need to catalyze transformative reforms, particularly in the aftermath of debt-driven pandemic recovery efforts and economic contractions, is paramount.

Sustainable growth hinges on transformative reforms spanning education, health, food security, social protection, and infrastructure, augmented by localization and digitalization initiatives. Embracing a bundled approach to innovations and aligning them with industrial policies for sectoral development can help mitigate trade-offs and facilitate collective progress.

The theme “Traversing Innovative Pathways for Economic Resilience, Inclusion, and Localization in the Philippines” mirrors the nation’s aspirations and forward momentum. It seeks to explore transformative strategies aimed at propelling the nation towards sustainable development, prosperity, and upper-middle-income status. Local economic development is a critical strategy to enhance innovative solutions to address economic challenges and promote resilience, inclusion, and localization. With increased devolution of powers and resources, LGUs have the autonomy to implement tailored strategies that cater to local needs, thereby driving inclusive growth and fostering economic resilience.

The conference will feature keynote presentations, panel discussions, and dialogues, providing a platform for stakeholders to exchange insights, share best practices, and co-create innovative solutions. Sessions will delve into various topics, including empowering local governance, promoting innovative PPPs with LGUs, enhancing infrastructure and capital investments, implementing structural changes, transforming key systems, leveraging digitalization, and developing sectoral industrial policies.

Bringing together policymakers, LGU officials, industry leaders, development practitioners, academics, and representatives from civil society organizations, the conference aims to foster collaboration and knowledge exchange towards catalyzing innovative pathways for economic resilience, inclusion, and localization in the Philippines.



Agham C. Cuevas

## President's Message

It is with great pride and excitement that I extend a warm welcome to each and every one of you to the 62nd Annual Meeting and Conference of the Philippine Economic Society! This year's theme, "Traversing Innovative Pathways for Economic Resilience, Inclusion, and Localization in the Philippines," reflects the critical moment we find ourselves in as a nation. As we gather for this landmark event, we are tasked with the important mission of exploring new strategies and novel approaches that will enable the Philippines to navigate its economic future toward attaining upper middle-income class status.

The global economic environment is increasingly characterized by volatility and uncertainty. From the enduring impacts of the COVID-19 pandemic and geopolitical tensions to the growing threats of climate change and technological disruption, our ability to respond with innovation has never been more crucial. Innovation will serve as the linchpin of our efforts to build an economy that not only recovers from setbacks but thrives in a competitive, rapidly changing world.

At the core of our discussions is the pursuit of economic resilience. Building a resilient economy means creating structures that can absorb and adapt to unexpected disruptions while maintaining momentum for growth. Resilience goes beyond surviving crises—it's about creating systems that can turn challenges into opportunities for transformation.

But economic growth alone is not enough. We must work towards building an economy that uplifts every Filipino, especially those in marginalized and underserved sectors. This means designing policies that provide equitable access to education, healthcare, financial resources, and job opportunities, ensuring that no one is left behind in our journey toward progress.

However, economic development should not be seen as a one-size-fits-all approach, but rather as a dynamic process that is responsive to the specific needs and strengths of local communities. Localization empowers local economies, harnessing the unique potential of each region, and each community in the Philippines to contribute to national prosperity. By promoting localized development strategies, we can unlock new opportunities for growth in rural areas, reduce regional disparities, and foster a more balanced and inclusive national economy.

Throughout this two-day conference, we will delve into these themes through insightful keynote addresses, expert panel discussions, and engaging breakout sessions. I urge you to take full advantage of the opportunities to engage with fellow professionals, policymakers, academics, and industry leaders. This is a chance to not only broaden our perspectives but to collaborate on practical solutions that will help steer the Philippines towards a future of sustainable development and inclusive growth. I am confident that this conference will serve as a fertile ground for thought-provoking discussions that will inspire us all to take meaningful steps toward building a more robust, inclusive, and resilient economic system.

On behalf of the PES Officers and Board of Trustees, allow me to express our sincerest gratitude to our distinguished keynote speakers, panelists, moderators, session organizers, and paper presenters for sharing their expertise and valuable time. We also would like to thank our conference partners who generously provided financial support for this conference. To our dear PES members and participants, thank you for being part of the 62nd PES Annual Meeting and Conference.

Once again welcome and Mabuhay!

# The Conference at a Glance

7 November 2024

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|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 7:30-8:30   | REGISTRATION*                                                                                                                                                                                                                                |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
| 8:30-9:15   | OPENING PLENARY SESSION**                                                                                                                                                                                                                    |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
| 9:20-10:30  | PLENARY SESSION I<br>Governance for Local Socioeconomic Development:<br>Best Practices and Prospects for Scaling Up                                                                                                                          |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
| 10:30-10:40 | MORNING BREAK                                                                                                                                                                                                                                |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
| 10:40-11:40 | PLENARY SESSION II<br>Jobs and Technology: Regional Report by the East Asia Pacific<br>Chief Economist Office (WBG-sponsored)                                                                                                                |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
| 11:40-12:40 | LUNCH AND BOOK LAUNCH                                                                                                                                                                                                                        |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
| 12:40-1:40  | PLENARY SESSION III<br>Philippine Prospects in the Medium and Long Term: Wishes and Reality (DLSU-sponsored)                                                                                                                                 |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
| 1:50-3:20   | SIMULTANEOUS SESSION A                                                                                                                                                                                                                       |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
|             | SESSION A1<br>Shaping a Resilient<br>Future: SDGs,<br>Energy, and SMEs in<br>a Post-COVID World<br>(DAP session)<br><u>Venue: Monet (2/F)</u>                                                                                                | SESSION A2<br>Competition and<br>Labor Market Power<br>in the Philippines<br>(PCC session)<br><u>Venue: Gauguin (3/F)</u> | SESSION A3<br>Central Banking in<br>the Post-Pandemic<br>Era: New Trends in<br>Inflation, Financial<br>Stability, and<br>External Factors<br>(BSP session)<br><u>Venue: Renoir (3/F)</u> | SESSION A4<br>Subsidiarity and<br>Collective Action<br>for Food Security,<br>Nutrition and<br>Resilience<br><u>Venue: Van Gogh (3/F)</u>        |
|             | SESSION A5<br>Poverty Alleviation<br>and Social<br>Protection<br><u>Venue: Cezanne (3/F)</u>                                                                                                                                                 | SESSION A6<br>Trade, Economic<br>Integration, and<br>International<br>Relations<br><u>Venue: Degas (3/F)</u>              | SESSION A7<br>Crafting New Teaching Resources and<br>Updating Our Curriculum in Economics:<br>Examples from Econometrics,<br>Macroeconomics, and Finance<br><u>Venue: Pissarro (3/F)</u> |                                                                                                                                                 |
|             |                                                                                                                                                                                                                                              |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
| 3:20-3:30   | AFTERNOON BREAK                                                                                                                                                                                                                              |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
| 3:30-5:00   | SIMULTANEOUS SESSION B                                                                                                                                                                                                                       |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |
|             | SESSION B1<br>Empowering Communities through<br>Innovative Solutions and Inclusive Growth<br>and Resilience Strategies in the Agriculture,<br>Aquatic, and Natural Resources (AANR)<br>Sector (PCAARRD session)<br><u>Venue: Monet (2/F)</u> |                                                                                                                           | SESSION B2<br>Investing for the<br>Future: Human<br>Capital and Robust<br>Businesses in the<br>Philippines<br><u>Venue: Gauguin (3/F)</u>                                                | SESSION B3<br>New Perspectives on<br>Inflation Dynamics<br>and Expectations<br><u>Venue: Renoir (3/F)</u>                                       |
|             | SESSION B4<br>Economic Studies in<br>Mindanao<br><u>Venue: Van Gogh (3/F)</u>                                                                                                                                                                | SESSION B5<br>National and<br>Regional Economic<br>Growth<br><u>Venue: Cezanne (3/F)</u>                                  | SESSION B6<br>Public Finance,<br>Monetary and<br>Financial Economics<br>I<br><u>Venue: Degas (3/F)</u>                                                                                   | SESSION B7<br>Nonstandard<br>Activities in<br>an Economics<br>Classroom: Setups,<br>Struggles, and<br>Successes<br><u>Venue: Pissarro (3/F)</u> |
|             |                                                                                                                                                                                                                                              |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                                 |

\* Venue is at the 2/F Lobby

\*\* Venue for all plenary sessions is at Monet Ballroom

# The Conference at a Glance

8 November 2024

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|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 8:30-10:00  | SIMULTANEOUS SESSION C                                                                                                                                                                        |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
|             | <b>SESSION C1</b><br>The Philippine Economics Education Roadmap: A Consultation<br><u>Venue: Monet (2/F)</u>                                                                                  | <b>SESSION C2</b><br>Industry Studies: Public and Transportation Utilities<br><u>Venue: Gauguin (3/F)</u>                                                | <b>SESSION C3</b><br>Economics of Natural Disasters and Sustainable Development<br><u>Venue: Renoir (3/F)</u>                                      |                                                                                                      |
|             | <b>SESSION C4</b><br>Consequences of Incorporating Equity, Inclusion, and Technological Developments on Socioeconomic Life<br><u>Venue: Van Gogh (3/F)</u>                                    | <b>SESSION C5</b><br>Agriculture, Food Security, and Rural Development<br><u>Venue: Cezanne (3/F)</u>                                                    | <b>SESSION C6</b><br>Public Finance, Monetary and Financial Economics II<br><u>Venue: Degas (3/F)</u>                                              | <b>SESSION C7</b><br>Population, Migration, and Economic Development<br><u>Venue: Pissarro (3/F)</u> |
| 10:00-10:10 | MORNING BREAK                                                                                                                                                                                 |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
| 10:10-11:40 | SIMULTANEOUS SESSION D                                                                                                                                                                        |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
|             | <b>SESSION D1</b><br>Philippines Growth and Jobs Report (WBG session)<br><u>Venue: Monet (2/F)</u>                                                                                            | <b>SESSION D2</b><br>Devolution 2.0: Fiscal and Other Implications of Amending EO 138 (NEDA session)<br><u>Venue: Gauguin (3/F)</u>                      | <b>SESSION D3</b><br>Socio-ecological Systems Within the AANR Sector in Philippine Rural Communities (ACIAR session)<br><u>Venue: Renoir (3/F)</u> |                                                                                                      |
|             | <b>SESSION D4</b><br>Young Economists Panel: Local Perspectives on National Challenges<br><u>Venue: Van Gogh (3/F)</u>                                                                        | <b>SESSION D5</b><br>Should We Still Be Whispering in the Ears of Princes? Sobering Findings from Our Agricultural Sector<br><u>Venue: Cezanne (3/F)</u> | <b>SESSION D6</b><br>Headline Inflation, Government Transfers, and Financial Inclusion<br><u>Venue: Degas (3/F)</u>                                | <b>SESSION D7</b><br>Economics of Education and Learning Poverty<br><u>Venue: Pissarro (3/F)</u>     |
| 11:40-12:40 | LUNCH AND GENERAL MEMBERSHIP MEETING                                                                                                                                                          |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
| 12:40-1:40  | PLENARY SESSION IV<br>Rethinking Poverty: Capability Deprivation and Living Income for a Decent Standard of Living (DLSU-sponsored)                                                           |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
| 1:45-2:45   | PLENARY SESSION V<br>Growing and Strengthening the Middle Class Towards Realizing the AmBisyon Natin 2040 (NEDA-sponsored)                                                                    |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
| 2:45-2:55   | AFTERNOON BREAK                                                                                                                                                                               |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
| 2:55-3:55   | PLENARY SESSION VI<br>Building Financial Security for Filipino Households Through Economic and Financial Literacy<br><i>(in celebration of the Economic and Financial Literacy Week 2023)</i> |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
| 4:00-4:45   | CLOSING PLENARY LECTURE<br>Vision for the Philippines' Localized Economic Growth                                                                                                              |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
| 4:45-5:00   | CLOSING CEREMONIES                                                                                                                                                                            |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |
| 5:30        | POST CONFERENCE FELLOWSHIP COCKTAILS (by invitation)                                                                                                                                          |                                                                                                                                                          |                                                                                                                                                    |                                                                                                      |

# The Conference in Detail

## Plenary Session (7 November 2024)

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### OPENING PLENARY SESSION

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Monet Ballroom (2/F), 8:30-9:15 a.m.

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| Welcome Remarks and<br>Introduction of the<br>Keynote Speaker | DR. AGHAM C. CUEVAS<br><i>President, Philippine Economic Society<br/>Vice Chancellor for Academic Affairs,<br/>University of the Philippines Los Baños</i> |
| Keynote Address                                               | Complementarities in Innovative<br>Economic Policy Design<br>PROF. WENDY CARLIN<br><i>Professor of Economics, University College London</i>                |
| Master of<br>Ceremonies                                       | ASST. PROF. JAN CARLO B. PUNONGBAYAN<br><i>University of the Philippines School of Economics</i>                                                           |

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### PLENARY SESSION I

#### Governance for Local Socioeconomic Development: Best Practices and Prospects for Scaling Up

Monet Ballroom (2/F), 9:20-10:30 a.m.

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|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Panelists | HON. ARTH JHUN A. MARASIGAN<br><i>City Mayor of Sto. Tomas, Batangas</i>                                                                         |
|           | HON. MEL SENEN SARMIENTO<br><i>Chairperson, Galing Pook Foundation and<br/>Former Secretary, Department of the Interior and Local Government</i> |
|           | HON. FERNANDO MESA<br><i>Former Municipal Mayor of Alabat, Quezon and Galing Pook Awardee</i>                                                    |
| Moderator | MS. CATHY YANG<br><i>Host, Thought Leaders, One News PH/Cignal TV, Inc</i>                                                                       |

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# The Conference in Detail

## Plenary Session (7 November 2024)

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### PLENARY SESSION II

Jobs and Technology: Regional Report by the East Asia Pacific  
Chief Economist Office (WBG-sponsored)

Monet Ballroom (2/F), 10:40-11:40 a.m.

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Speaker DR. AADITYA MATTOO  
*Chief Economist of the East Asia and Pacific Region, World Bank Group*

Panelists MS. AMBE TIERRO  
*Country Managing Director, Accenture Philippines*

USEC. RONALD MENDOZA  
*Undersecretary for Policy and Planning, Department of Education*

USEC. RAFAELITA ALDABA  
*Undersecretary for Competitiveness and Innovation,  
Department of Trade and Industry*

Moderator DR. CLARISSA DAVID  
*Senior Country Officer, World Bank Group*

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### BOOK LAUNCH

Designing Competition Policy for Economic Development in Asia

Monet Ballroom (2/F), 11:40-12:40 p.m.

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Message SEC. ARSENIO M. BALISACAN  
*Secretary, National Economic and Development Authority*

Overview of the Book DR. MAJAH-LEAH V. RAVAGO  
*President and CEO, Development Academy of the Philippines*

Panel Discussion HON. STELLA LUZ A. QUIMBO  
*Representative, Second District of Marikina*

DR. JAMES A. ROUMASSET  
*Professor, University of Hawaii*

COMM. LOLIBETH RAMIT-MEDRANO  
*Commissioner, Philippine Competition Commission*

DR. YESIM ELHAN-KAYALAR  
*Asian Development Bank*

Moderator DR. YASUYUKI SAWADA  
*Professor, University of Tokyo*

Master of Ceremonies MS. ELLINOR T. SANTOS  
*Development Academy of the Philippines*

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# The Conference in Detail

## Plenary Session (7 November 2024)

### PLENARY SESSION III

Philippine Prospects in the Medium and Long Term: Wishes and Reality  
(DLSU-sponsored)

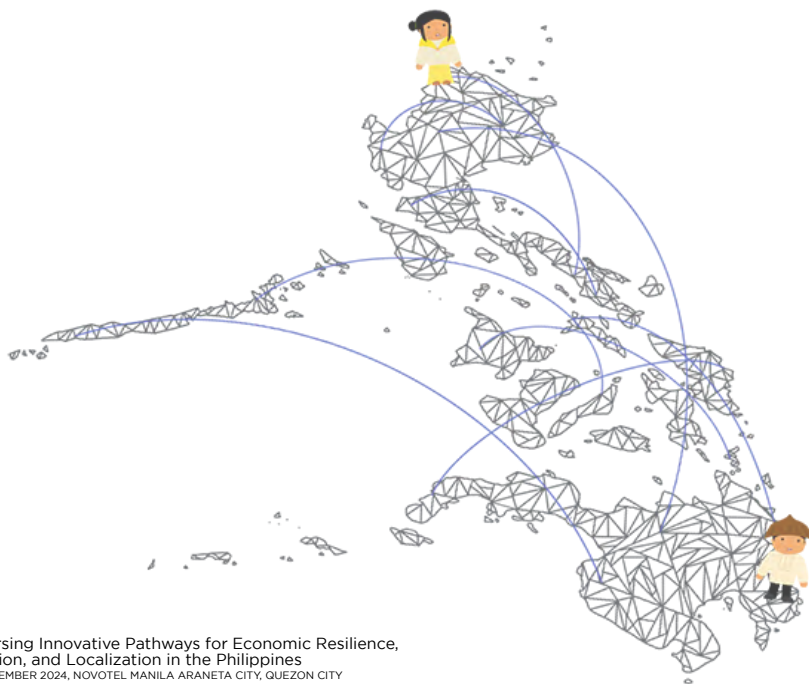
Monet Ballroom (2/F), 12:40-1:40 p.m.

Panelists DR. GERARDO LARGOZA  
*Associate Professor, Carlos L. Tiu School of Economics,  
De La Salle University*

DR. CHRISTOPHER JAMES CABUAY  
*Associate Professor, Carlos L. Tiu School of Economics,  
De La Salle University*

DR. MARIEL MONICA SAULER  
*Associate Professor, Carlos L. Tiu School of Economics,  
De La Salle University*

Moderator DR. JESUS FELIPE  
*Distinguished Professor, Carlos L. Tiu School of Economics,  
De La Salle University*



# The Conference in Detail\*

## Simultaneous Session A (7 November 2024)

### SESSION A1. Shaping a Resilient Future: SDGs, Energy, and SMEs in a Post-COVID World (DAP session)

Monet Ballroom (2/F), 1:50-3:20 p.m.

Tracking Evidence-based Country Initiatives on Sustainable Development Goals Using Foresight and Futures Thinking as a Lens towards World-Class Bureaucracies

CHESTER B. CABALZA  
*Development Academy of the Philippines*

Impact of the COVID-19 Pandemic on Philippine Small and Medium Enterprises

PAULINE MARIE S. VILLAR  
*Development Academy of the Philippines*

How COVID-19 Influenced Openness to Switching to Natural Gas and Solar in the Philippine Manufacturing Industry

MITHI MARIA D. PEÑARANDA  
*Development Academy of the Philippines*

The Role of Retrofitting and Infrastructure in Switching to Natural Gas

BRIAN JASON H. PONCE  
*Development Academy of the Philippines*

Moderator

MAJAH-LEAH V. RAVAGO  
*Development Academy of the Philippines*

### SESSION A2. Competition and Labor Market Power in the Philippines (PCC session)

Gauguin, 3/F, 1:50-3:20 p.m.

Concentration, Representation, and Bargaining in Local Labor Markets

EDGARDO MANUEL MIGUEL JOSON  
*Philippine Competition Commission*

The Incomplete Leap: On the Transition from Union Formation to the First Collective Agreement

EDGARDO ANTONIO SUGUITAN  
*University of the Philippines Baguio*

Chains that Bind: Restrictive Covenants and Perceived Occupational Mobility

VINCENT RAMOS  
*University of Southampton*

Discussant

MARIANNE JOY VITAL  
*University of Oxford*

\* Please note that the names listed in the program are paper presenters only.  
For a complete list of all authors, please refer to the abstracts provided.

# The Conference in Detail\*

## Simultaneous Session A (7 November 2024)

### SESSION A3. Central Banking in the Post-pandemic Era: New Trends in Inflation, Financial Stability, and External Factors (BSP session)

Renoir, 3/F (2/F), 1:50-3:20 p.m.

The Changing Effect of Rice and Energy Price  
Inflation on General CPI Inflation:  
Evidence from the Philippines

HAROLD GLENN A. VALERA  
VIC C. DELLORO  
*Bangko Sentral ng Pilipinas*

The Impact of Foreign Equity Infusion on  
Profitability and Asset Quality of Philippine Rural  
Banks: A Preliminary Analysis

CARL FRANCIS C. MALIWAT  
*Bangko Sentral ng Pilipinas*

Do Remittances Shape Household Spending?:  
Evidence from Migrants' Household Survey

VERONICA BAYANGOS  
CYMON KAYLE LUBANGCO  
*Bangko Sentral ng Pilipinas*

Estimating Exchange Rate Equilibria and  
Misalignment in the Philippines

JUAN LUIS F. CAYANGA  
CHRISTOFER A. MARTIN  
*Bangko Sentral ng Pilipinas*

Making Sense of China's Exchange  
Rate Policy

CALLA WIEMER  
*American Committee on Asian  
Economic Studies*

Moderator

FAITH CHRISTIAN Q. CACNIO  
*Bangko Sentral ng Pilipinas*

### SESSION A4. Subsidiarity and Collective Action for Food Security, Nutrition and Resilience

Van Gogh, 3/F (2/F), 1:50-3:20 p.m.

Food Security in the Philippines: Facts,  
Challenges and Imperatives

CIELITO F. HABITO  
*Brain Trust Inc.*

Agricultural Cooperatives in Philippine Agricultural  
Development: A Policy Background Paper for an  
Agri-cooperatives Development Agenda

ROEHLANO M. BRIONES  
*Philippine Institute for Development Studies/  
Brain Trust Inc.*

Doing Agriculture and Fisheries Devolution Right:  
An Imperative for Food Security and Nutrition

ELLA S. ANTONIO  
*Brain Trust Inc.*

Discussant

MARIAN PASTOR-ROCES  
*TAO Inc./Brain Trust Inc.*

Moderator

DAN SONGCO  
*Brain Trust Inc.*

# The Conference in Detail\*

## Simultaneous Session A (7 November 2024)

### SESSION A5. Poverty Alleviation and Social Protection

Cezanne, 3/F, 1:50-3:20 p.m.

|                                                                                                                                                                   |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| The People's History of Poverty, Poverty Thresholds, and Poverty Gaps                                                                                             | MAHAR K. MANGAHAS<br><i>Social Weather Stations</i>                                     |
| Unbundling the Bundle: A Quasi-Experiment on the Effects of Lockdown Policies and Cash Transfers during the COVID-19 Pandemic on Household Income and Consumption | RACHELLE ANGELA C. RAMOS<br><i>The London School of Economics and Political Science</i> |
| An Updated and Contextualized Threshold Family Income (TFI) Study for General Santos City                                                                         | CARMELO H. ENRIQUEZ<br><i>Notre Dame Business Resource Center Foundation, Inc.</i>      |
| Moderator                                                                                                                                                         | PHILIP ARNOLD P. TUAÑO<br><i>Ateneo de Manila University</i>                            |

### SESSION A6. Trade, Economic Integration, and International Relations

Degas, 3/F, 1:50-3:20 p.m.

|                                                                                                 |                                                                                         |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Impact of Agricultural Trade Liberalization on Food Consumption Patterns in the Philippines     | KATE ALEXANDRA R. FABRO<br><i>De La Salle University Manila</i>                         |
| The Impact of Exchange Rates and Monetary Policy on Exports: Evidence from the RCEP             | JOSE ADLAI M. TANCANGCO<br>HAZEL C. PARCON-SANTOS<br><i>Bangko Sentral ng Pilipinas</i> |
| International Integration as a Catalyst of the Green Transition in the Philippines              | GONZALO VARELA<br><i>World Bank</i>                                                     |
| De-risking of the Philippines from China: Exploring Its Feasibility and Economic Considerations | MALCOLM DOWELL C. DOMINGO<br><i>Armed Forces of the Philippines (retired)</i>           |
| Moderator                                                                                       | HYUN H. SON<br><i>Asian Development Bank</i>                                            |

\* Please note that the names listed in the program are paper presenters only.  
For a complete list of all authors, please refer to the abstracts provided.

# The Conference in Detail\*

## Simultaneous Session A (7 November 2024)

### SESSION A7. Crafting New Teaching Resources and Updating Our Curriculum in Economics: Examples from Econometrics, Macroeconomics, and Finance

Pissarro (3/F), 1:50-3:20 p.m.

Explaining Bond Pricing Principles to Undergraduates Using Historical Connections and Two New Expositions

STEPHANIE L. CHAN  
*De La Salle University Manila*

Development of an Open Economy Aggregate Supply Curve for Intermediate Macroeconomics

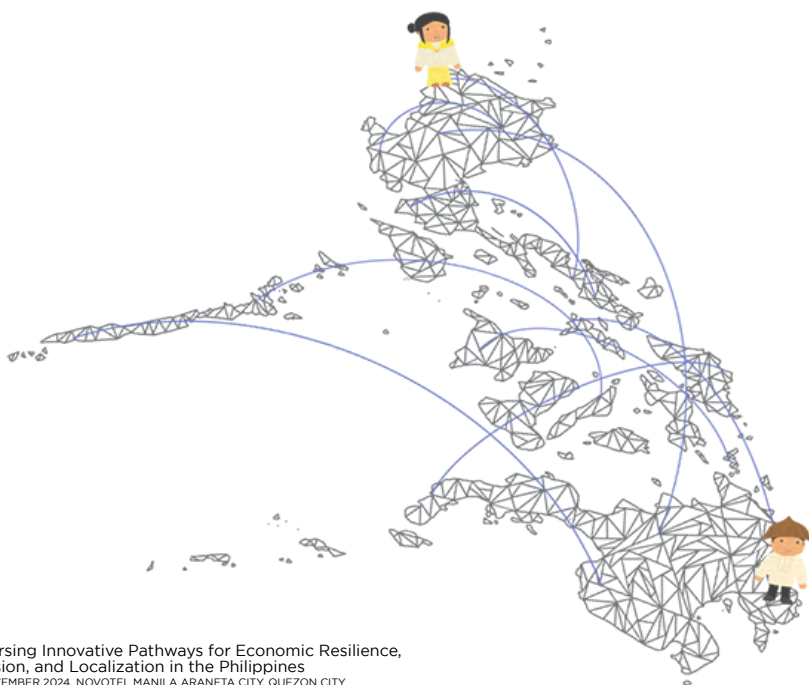
DICKSON LIM  
*De La Salle University Manila*

Seven Examples to Better Illustrate the Method of Moments to Undergraduates

ANDREW ADRIAN PUA  
*De La Salle University Manila*

Moderator

DICKSON LIM  
*De La Salle University Manila*



# The Conference in Detail\*

## Simultaneous Session B (7 November 2024)

### SESSION B1. Empowering Communities through Innovative Solutions and Inclusive Growth and Resilience Strategies in the Agriculture, Aquatic, and Natural Resources (AANR) Sector (PCAARRD session)

Monet Ballroom (2/F), 3:30-5:00 p.m.

|                                                                                                                                               |                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Natural Capital Accounting and PENCAS:<br>Can LGU's Comply?                                                                                   | LEA MAY DR. AGUILA<br><i>University of the Philippines Los Baños</i>            |
| Development of Sustainable and Inclusive Value<br>Chains for Selected Value Chains in Laguna                                                  | MELODEE MARCIANA E. DE CASTRO<br><i>University of the Philippines Los Baños</i> |
| The Promise and Potential Pitfalls in Promoting<br>Co-production for Sustainable Nature-Based<br>Livelihoods: Insights From the CP4SL Project | JENNIFER MARIE S. AMPARO<br><i>University of the Philippines Los Baños</i>      |
| Impact Assessment of Floods and Droughts<br>in Selected Agricultural Municipalities in Laguna:<br>A Transdisciplinary Approach                | MARIA ANGELES O. CATELO<br><i>University of the Philippines Los Baños</i>       |
| Watershed-Based Integrated Land Use Planning<br>Approach (WILUP): Innovative Framework<br>for Inclusive Growth                                | REX VICTOR O. CRUZ<br><i>University of the Philippines Los Baños</i>            |
| Moderator                                                                                                                                     | MONICA CASTILLO<br><i>PCAARRD</i>                                               |

### SESSION B2. Competition and Labor Market Power in the Philippines (PCC session)

Gauguin, 3/F, 3:30-5:00 p.m.

|                                                                                                                                                         |                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Returns to Education in the Philippines (2005-2022):<br>Declining Benefits, Increased Inequities                                                        | JAN CARLO B. PUNONGBAYAN<br><i>University of the Philippines School of<br/>Economics</i>                |
| Emergency Innovations, Business Adjustments, and<br>Exporters' Robustness and Resilience Amidst COVID-19<br>Shocks: A Cross-Country Firm-Level Analysis | ADRIAN R. MENDOZA<br><i>University of the Philippines School of<br/>Economics</i>                       |
| How Does Non-maternal Care Affect Children's Physical<br>And Cognitive Development?                                                                     | JANA ISABELLA S. CRUZ<br>FIONA LEIGH UY<br><i>University of the Philippines School of<br/>Economics</i> |
| Growth, Poverty, and Food Policy in the Philippines:<br>Lessons for the Post COVID-19 Era                                                               | ENRICO G. TRINIDAD<br><i>National Economic and Development<br/>Authority</i>                            |
| Moderator                                                                                                                                               | KARL ROBERT L. JANDOC<br><i>University of the Philippines School of<br/>Economics</i>                   |

# The Conference in Detail\*

## Simultaneous Session B (7 November 2024)

### SESSION B3. New Perspectives on Inflation Dynamics and Expectations

Renoir, 3/F (2/F), 3:30-5:00 p.m.

|                                                                                                                               |                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Measuring Uncertainty in<br>Inflation Expectations                                                                            | MA. AIZL CAMILLE SANTILLAN<br><i>Bangko Sentral ng Pilipinas</i>                          |
| Inflation Expectations of Filipino Households:<br>Adaptive, Rational, or Sticky?: Evidence from<br>an Emerging Market Economy | MARY KRYSLETTE C. BUNYI<br><i>Bangko Sentral ng Pilipinas</i>                             |
| Estimating Trend Inflation in the Philippines<br>Using Inflation Expectations Survey                                          | SARAH JANE A. CASTAÑARES<br>REIZLE JADE C. PLATITAS<br><i>Bangko Sentral ng Pilipinas</i> |
| Measurement and Analysis of the Dynamics of<br>Trend Inflation in the Philippines                                             | RUBY ANNE E. LEMENCE<br><i>Bangko Sentral ng Pilipinas</i>                                |
| Moderator                                                                                                                     | JAN CHRISTOPHER G. OCAMPO<br><i>Bangko Sentral ng Pilipinas</i>                           |

### SESSION B4. Economic Studies in Mindanao

Van Gogh, 3/F (2/F), 3:30-5:00 p.m.

|                                                                                                                                                                                 |                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Determinants of Crime Rate: The Case from<br>Regions of Mindanao, Philippines                                                                                                   | KATHYLENE MAE C. CAÑADA<br>RHEALYN S. PACULOB<br><i>Mindanao State University-Iligan Institute<br/>of Technology</i> |
| Preliminary Assessment for Enhancing<br>Energy Access and Social Inclusion through<br>Community-Based Deployment of<br>Off-Grid Renewable Energy Systems<br>in the Davao Region | LARRY JAY G. SAMONTINA<br><i>Department of Science and Technology<br/>- Region XI</i>                                |
| Enhancing Agricultural and Fisheries (AF)<br>Productivity: A Capacity Assessment of Davao<br>Occidental LGUs, Philippines                                                       | GRACE D. BUENCILLO<br><i>Southern Philippines Agribusiness<br/>and Marine Aquatic School of Technology</i>           |
| Housing Affordability in Barangay Bucana,<br>Davao City using the House Price to<br>Income Ratio                                                                                | BENJIE A. ROCES<br><i>University of Southeastern Philippines</i>                                                     |
| Moderator                                                                                                                                                                       | TRISTAN A. CANARE<br><i>Bangko Sentral ng Pilipinas</i>                                                              |

\* Please note that the names listed in the program are paper presenters only.  
For a complete list of all authors, please refer to the abstracts provided.

# The Conference in Detail\*

## Simultaneous Session B (7 November 2024)

### SESSION B5. National and Regional Economic Growth

Cezanne, 3/F, 3:30-5:00 p.m.

|                                                                                                                                                                        |                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| National Budget Allocations and<br>Regional Growth Dynamics<br>in the Philippines                                                                                      | COLEEN ABIGAIL V. VILLALUZ<br><i>Congressional Policy and Budget<br/>Research Department, House of<br/>Representatives</i> |
| Effects of Informal Retail Sector in Economic<br>Growth: A Macroeconomic Computable General<br>Equilibrium Model for the Philippines                                   | CHERRYLYN P. LABAYO<br><i>Ateneo de Manila University</i>                                                                  |
| Investing in Public Infrastructure in the Philippines:<br>A Simulation Study Using a CGE Model                                                                         | EMMANUEL M. PREÑA<br><i>Ateneo de Manila University</i>                                                                    |
| Public Sector Innovation in the National Capital<br>Region: Interrelationships of Competitiveness<br>Pillars in the Cities and Municipalities<br>Competitiveness Index | CHRIS ALLEN V. MATUTE<br><i>Polytechnic University of the Philippines</i>                                                  |
| Moderator                                                                                                                                                              | LAARNI C. ESCRESA<br><i>University of the Philippines<br/>School of Economics</i>                                          |

### SESSION B6. Public Finance, Monetary and Financial Economics I

Degas, 3/F, 3:30-5:00 p.m.

|                                                                                                                                                                             |                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Nexus between Financial Inclusion and<br>Economic Activity: A Study about Traditional<br>and Non-traditional Financial Service Indicators<br>Determining Financial Outreach | FLORIAN GERTH<br><i>Asian Institute of Management</i>                                          |
| How Does Financial Literacy Affect Financial<br>Behavior Over the Life Cycle? Evidence From<br>Filipino Households                                                          | FAITH CHRISTIAN Q. CACNIO<br>MARIE EDELWEISS G. ROMARATE<br><i>Bangko Sentral ng Pilipinas</i> |
| How Do Households' View of Inflation<br>Expectations Affect Their Consumption Decisions?                                                                                    | FAITH CHRISTIAN Q. CACNIO<br>CYMON KAYLE LUBANGCO<br><i>Bangko Sentral ng Pilipinas</i>        |
| The State of Economic Literacy in the Philippines:<br>Findings from a National Survey                                                                                       | NATHANIEL C. NOYA<br><i>Ekonsepto</i>                                                          |
| Moderator                                                                                                                                                                   | JOVI C. DACANAY<br><i>University of Asia and the Pacific</i>                                   |



# The Conference in Detail\*

## Simultaneous Session B (7 November 2024)

### SESSION B7. Nonstandard Activities in an Economics Classroom: Setups, Struggles, and Successes

Pissarro (3/F), 3:30-5:00 p.m.

Bridging Cultures and Economies:  
Assessing the Potential of a Collaborative Online  
International Learning (COIL) on  
Economics Education in a Hybrid Context

JASON ALINSUNURIN  
*De La Salle University Manila*

Can a Small-scale NK DSGE Model Still  
Compete Against Forecasting Workhorses?:  
Some Observations from a Believer

LAWRENCE B. DACUYCUY  
*De La Salle University Manila*

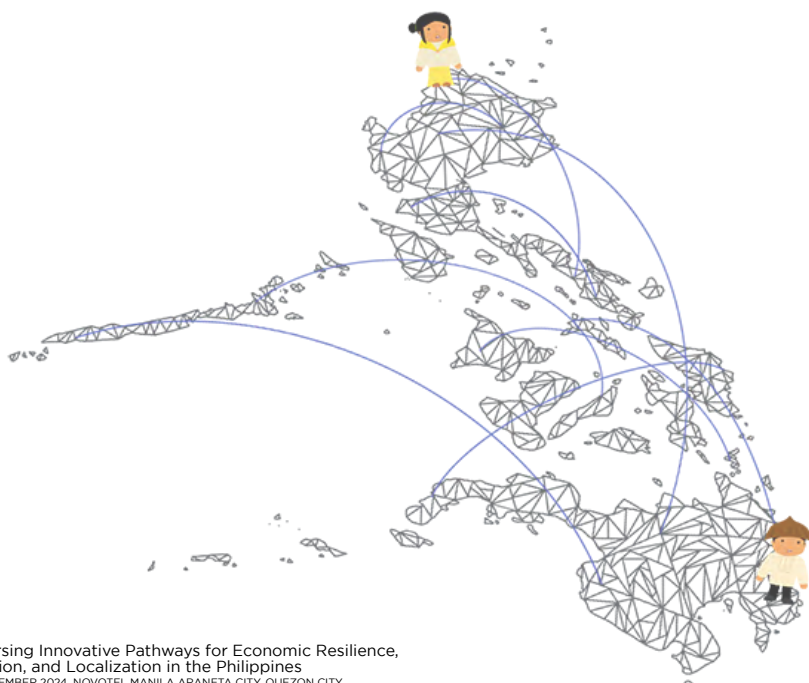
Early Exposure of Economics Students to  
Symbolic Computation in Python

ANDREW ADRIAN PUA  
*De La Salle University Manila*

Moderator

ANDREW ADRIAN PUA  
*De La Salle University Manila*

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For a complete list of all authors, please refer to the abstracts provided.*



# The Conference in Detail\*

## Simultaneous Session C (8 November 2024)

### SESSION C1. The Philippine Economics Education Roadmap: A Consultation

Monet Ballroom (2/F), 8:30-10:00 a.m.

- Presenter

JEFFERSON ARAPOC  
*University of the Philippines Los Baños*
- Reactors

JOSE V. CAMACHO, JR.,  
*University of the Philippines Los Baños*

CATHERINE ROWEEN C. ALMADEN  
*Asian Institute of Management*
- Moderator

RUBEN M. NAYVE, JR.,  
*Adamson University*

### SESSION C2. Industry Studies: Public and Transportation Utilities

Venue: Gauguin, 3/F, 8:30-10:00 a.m.

- Assessing Port Efficiency of the  
Philippine Domestic Ports: An Application  
of Data Envelopment Analysis

MARY GRACE R. AGNER  
JACQUELINE MIRABUENO  
TANYA NICOLE REYES  
*University of Asia and the Pacific*
- Simulating the Impact of NPC's Proposed  
New SAGR on MIMAROPA's Regional  
Economy and Poverty Levels using CGE

JAMES MATTHEW B. MIRAFLOR  
*Center for Power Issues and Initiatives*
- Energy Portfolios of Philippine Households:  
The Role of Electricity Prices and  
Socioeconomic Status

ZYLVER WAYNE L. BAUTISTA  
ALDRIN JOSEPH A. GARVIDA  
*Ateneo de Manila University*
- Moderator

ADORACION M. NAVARRO  
*Philippine Institute for Development Studies*

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# The Conference in Detail\*

## Simultaneous Session C (8 November 2024)

### SESSION C3. Economics of Natural Disasters and Sustainable Development

Renoir, 3/F (2/F), 8:30-10:00 a.m.

An Analysis on the Influence of Eco-innovation  
on Climate Change Risk in  
Asia and Europe (2012-2018)

MICHAELLA ABING  
*Mindanao State University-Iligan Institute  
of Technology*

When It Rains, It Falls: Precipitation, Firm  
Relocation, And Productivity

IRENE JO E. ARZADON  
*World Bank/University of the Philippines  
School of Economics*

The Effect of Carbon Emissions on Free Cash  
Flow and Tobin's Q of Publicly Listed Firms in the  
ASEAN-5

NORVIN NIMIEL G. DELA CRUZ  
JOSE GABRIEL B. LONTOC  
KARUNA MAY T. MANSUKHANI  
JUAN CARLOS G. RODRIGUEZ  
*De La Salle University Manila*

Sectoral Emission Intensities and Carbon  
Leakage Across Economies

ERIN RAMONE A. CARANDANG  
*De La Salle University Manila*

Moderator

KRISTA DANIELLE S. YU  
*De La Salle University*

### SESSION C4. Consequences of Incorporating Equity, Inclusion, and Technological Developments on Socioeconomic Life

Van Gogh, 3/F (2/F), 8:30-10:00 a.m.

Philippine Government versus Private Sector  
Wages: Its Decomposition across the Distribution  
and the Salary Standardization Law

MARIA FRANCESCA TOMALIWAN  
*De La Salle University Manila*

The Impact of Female Board Participation  
on Family Firm Performance: Does Family  
Affiliation Matter?

ANDRAE JAMAL I. TECSON  
*De La Salle University Manila*

The Intergenerational Effects of Mobile Phone  
Ownership on The Educational Outcomes  
of Filipino Households

RAPHAEL MANUEL RAMOS  
*De La Salle University Manila*

Assessment of Social and Economic Performance  
of Selected Barangays Traversing Pagbanganan  
River in Baybay, Leyte, Philippines

MARY CRIS F. PLEÑOS  
*Visayas State University*

Moderator

ALBERT E. LAMBERTE  
*De La Salle University Manila*

# The Conference in Detail\*

## Simultaneous Session C (8 November 2024)

### SESSION C5. Agriculture, Food Security, and Rural Development

Cezanne, 3/F, 8:30-10:00 a.m.

Factors Affecting the Rice Import Dependency of  
Selected Southeast Asian Countries (2002-2021)

AUBREY KYLE CABANLIT  
GABRIEL JOSEPH ENOC  
JAINEI MARIQUIT  
*Mindanao State University-Iligan Institute  
of Technology*

Effects of Farmers' Machinery Utilization Under  
Rice Competitiveness Enhancement Fund (RCEF)  
Mechanization Program on Farm Yield and Net  
Income in Selected Rice Farmers in Calamba City,  
Dry Season, 2024

JHORINE A. LIWANAG  
*University of the Philippines Los Baños*

Analysis of the Credit Needs and Behavior of Tilapia  
Grow-out Farmers in Palakpakin Lake, San Pablo City

RIA ISELLE D. LEYNES  
*University of the Philippines Los Baños*

Vertical Market Integration and Price Transmission  
in Philippine Fresh Fish Markets

LANS GABRIEL L. GALINEA  
*University of the Philippines Visayas*

Moderator

ARLENE B. INOCENCIO  
*De La Salle University*

### SESSION C6. Public Finance, Monetary, and Financial Economics II

Venue: Degas, 3/F, 8:30-10:00 a.m.

Fiscal Dominance and the Optimal Maturity  
Structure of Sovereign Debt

CHETAN GHATE  
*Indian Statistical Institute-Delhi Centre and  
Institute of Economic Growth*

The Impact of Currency Depreciation and  
Foreign Exchange Positions on Bank Lending:  
Evidence from the Philippines

HAZEL PARCON-SANTOS  
*Bangko Sentral ng Pilipinas*

Bank Opacity, Risk-taking Behavior, and Solvency of  
the Top 20 Universal and Commercial Banks (UKBs)  
in the Philippines

JOVI C. DACANAY  
*University of Asia and the Pacific*

The Potential Impact of a Tax on Instant Coffee on  
Consumption and Revenues in the Philippines

PRINCE LOUIE B. MAMHOT  
*Congressional Policy and Budget Research  
Department, House of Representatives*

Moderator

LAWRENCE B. DACUYCUY  
*De La Salle University*

# The Conference in Detail\*

## Simultaneous Session C (8 November 2024)

### SESSION C7. Labor Economics

Pissarro (3/F), 8:30-10:00 a.m.

Tempest and Turmoil: Assessing Typhoon Haiyan's  
Impact on the Philippine Labor Market

JITAE KIM  
*Ateneo de Manila University*

Examining the Impact of Lowering the Personal  
Income Tax on the Work Efforts of Filipino Workers

EDREI Y. UDAUNDO  
*Congressional Policy and Budget  
Research Department,  
House of Representatives*

Attitudes Toward LGBT Supervisors: Experimental  
Evidence from the Philippines

MELISA FABELLA-ESMALLA  
*Ritsumeikan University*

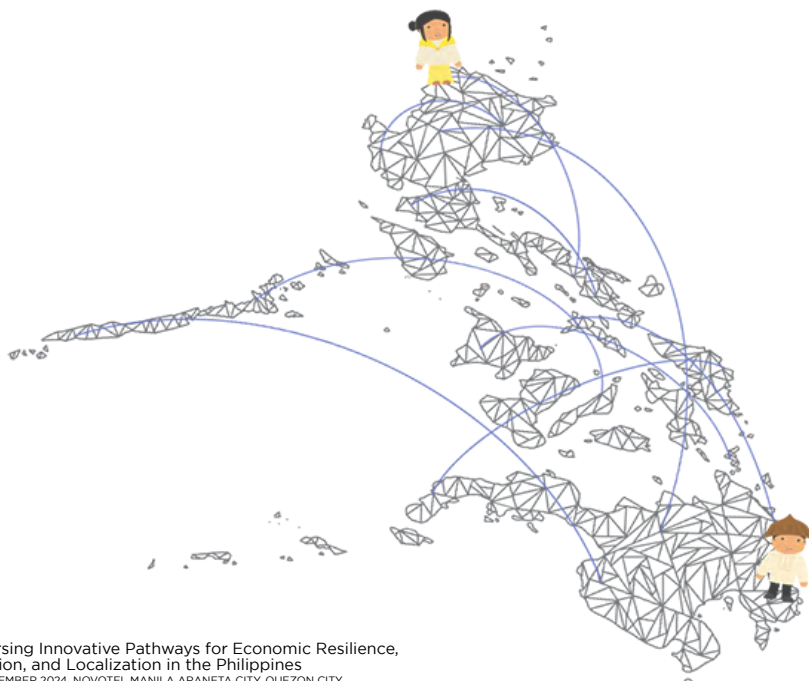
Female Entrepreneurs and Executives as  
Natural Catalysts of Human Flourishing

DIANA RUEDA  
*University of Asia and the Pacific*

Moderator

ALICE JOAN G. FERRER  
*University of the Philippines Visayas*

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# The Conference in Detail\*

## Simultaneous Session D (8 November 2024)

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### SESSION D1. Philippines Growth and Jobs Report (WBG session)

Monet Ballroom (2/F), 10:10-11:40 a.m.

|                                                                      |                                                              |
|----------------------------------------------------------------------|--------------------------------------------------------------|
| Growth and Jobs in the Philippines: What's Happened and What's Next? | GONZALO VARELA<br><i>World Bank Group</i>                    |
| Technology and Firm Dynamics                                         | JAIME FRIAS<br><i>World Bank Group</i>                       |
| Sustaining Spatial Convergence                                       | ANDREAS EBERHARD<br>ILDRIM VALLEY<br><i>World Bank Group</i> |
| Moderator                                                            | REMRICK PATAGAN<br><i>World Bank Group</i>                   |

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### SESSION D2. Devolution 2.0: Fiscal and Other Implications of Amending EO 138 (NEDA session)

Venue: Gauguin, 3/F, 10:10-11:40 a.m.

|                                        |                                                                           |
|----------------------------------------|---------------------------------------------------------------------------|
| Sensitivity Analysis of Devolution 2.0 | JOSEPH J. CAPUNO<br><i>National Economic and Development Authority</i>    |
| Devolution Study: A Fiscal Perspective | JOSELITO R. BASILIO<br><i>Department of Budget and Management</i>         |
| Moderator                              | GILBERTO M. LLANTO<br><i>Philippine Institute for Development Studies</i> |

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# The Conference in Detail\*

## Simultaneous Session D (8 November 2024)

### SESSION D3. Socio-ecological Systems Within the AANR Sector in Philippine Rural Communities (ACIAR session)

Renoir, 3/F (2/F), 10:10-11:40 a.m.

|                                                                                                                                                                      |                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Valuing Water Ecosystem Service Provision for Irrigation of Rice Farming in Sta. Cruz River Watershed                                                                | RICHELLE MARIE B. LEGASPI<br><i>University of the Philippines Los Baños</i>          |
| An Application of Analytic Hierarchy Process Approach towards Decision-Making Dynamics of players in the Philippine Vegetable Supply Chain                           | GIDEON NEIL D. TAN<br><i>Visayas State University</i>                                |
| Exploring the Application of Sustainable Rice Platform (SRP) as Innovative Performance Indicators for the Evaluation of Rice Competitiveness Enhancement Fund (RCEF) | LEMUEL S. PRECIADOS<br><i>Visayas State University</i>                               |
| Why Engage Stakeholders in Payments for Ecosystems Services? The Case of Manupali Watershed in Lantapan, Bukidnon                                                    | CAROLINE D. PIÑON<br><i>University of the Philippines Los Baños</i>                  |
| The Highs and Lows of Tourism: Analyzing Inflationary Pressures in Sagada's Local Economy and Agriculture                                                            | DEZCERY VALEÑA<br>JEMELENE ARIZAPA<br><i>University of the Philippines Los Baños</i> |
| Moderator                                                                                                                                                            | CANESIO D. PREDO<br><i>University of the Philippines Los Baños</i>                   |

### SESSION D4. Young Economists Panel: Local Perspectives on National Challenges

Van Gogh, 3/F (2/F), 10:10-11:40 a.m.

|                                                                                                                 |                                                                                              |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Revitalization Initiatives of the Local Government: A Case Study of the Balut Industry in Pateros, Metro Manila | CIELO GRACE F. BACANI<br><i>Polytechnic University of the Philippines Manila/Ekonsepto</i>   |
| Guns and Butter: The Tradeoff Between Defense and Social Expenditure in the Philippines (1981-2022)             | AXL FITZGERALD L. BULAWAN<br><i>University of the Philippines Tacloban College/Ekonsepto</i> |
| Achieving Economic Security through the Blue Economy                                                            | MARIUS STEPHEN V. TORRES<br><i>Department of Finance/Ekonsepto</i>                           |
| Discussant                                                                                                      | GEMMY LONTOC<br><i>Ateneo de Manila University/Ekonsepto</i>                                 |
| Moderator                                                                                                       | NATHANIEL NOYA<br><i>WR Numero/Ekonsepto</i>                                                 |

# The Conference in Detail\*

## Simultaneous Session D (8 November 2024)

### SESSION D5. Should We Still Be Whispering in the Ears of Princes? Sobering Findings from Our Agricultural Sector

Cezanne, 3/F, 10:10-11:40 a.m.

Are Our Food and Nutrition Systems Transformation-ready? Assessing the Food and Nutrition Policy and Governance Landscape in the Philippines

GENY F. LAPIÑA  
*University of the Philippines Los Baños*

Bitter or Sweet?: Impact and Insights From Sugar Trade Liberalization

JAYMEE A. CABANGBANG  
*University of the Philippines Los Baños*

Spatial Dependence in Groundwater Factor Demand of Lowland Rice Farmers

ANTONIO JESUS A. QUILLOY  
*University of the Philippines Los Baños*

Estimating and Decomposing the Productivity of the Rice Production Industry in the Philippines

ALBERT E. LAMBERTE  
*De La Salle University Manila*

Discussants

CENON D. ELCA  
*University of the Philippines Los Baños*  
MARITES M. TIONGCO  
*De La Salle University Manila*  
NORA D. CARAMBAS  
*University of the Philippines Los Baños*  
CHARIS M. T. NERIC  
*University of the Philippines Los Baños*

Moderator

SAMANTHA MANALASTAS  
*University of the Philippines Los Baños*

### SESSION D6. Headline Inflation, Government Transfers, and Financial Inclusion

Venue: Degas, 3/F, 10:10-11:40 a.m.

Reducing the Upward Bias of Philippine Headline Inflation: Theory and Application

JESUS C. DUMAGAN  
*De La Salle University Manila*

Are transfers Expansionary?:  
A DSGE Approach

LAWRENCE B. DACUYCUY  
*De La Salle University Manila*

Has Financial Inclusion in the Philippines Improved Over the Past Decade?: Findings From Four Waves of the Global Financial Inclusion Database

DENISE YSABEL P. CEBRERO  
*De La Salle University Manila*

Moderator

FERDINAND S. CO  
*Bangko Sentral ng Pilipinas*

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# The Conference in Detail\*

## Simultaneous Sessions D (8 November 2024)

### SESSION D7. Labor Economics

Pissarro (3/F), 10:10-11:40 a.m.

Efficiency of Public Education Spending in the Philippines: A Data Envelopment Analysis

JULIUS I. DUMANGAS  
*Congressional Policy and Budget  
Research Department,  
House of Representatives*

Learning Loss and Recovery from the  
COVID-19 Pandemic:  
A Systematic Review of Evidence

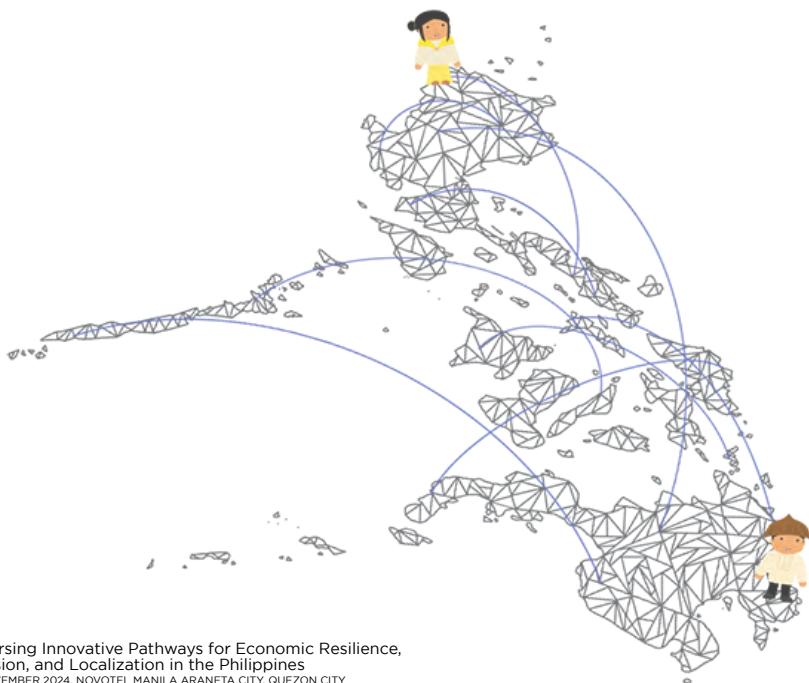
RHEA M. MOLATO-GAYARES  
*Asian Development Bank*

Is there a “Grade Penalty” for College Students  
Mismatched with their Senior High School Tracks  
and Strands?: Evidence from the University  
of the Philippines Diliman

JAN CARLO B. PUNONGBAYAN  
*University of the Philippines School  
of Economics*

Moderator

SER PERCIVAL K. PEÑA-REYES  
*Ateneo de Manila University*



# The Conference in Detail

## Plenary Session (8 November 2024)

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### PLENARY SESSION IV

Rethinking Poverty: Capability Deprivation and Living Income  
for a Decent Standard of Living (DLSU-sponsored)

Monet Ballroom (2/F), 12:40-1:40 p.m.

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|            |                                                                                                                       |
|------------|-----------------------------------------------------------------------------------------------------------------------|
| Panelists  | DR. ALELLIE B. SOBREVINÑAS<br><i>Associate Professor, Carlos L. Tiu School of Economics, De La Salle University</i>   |
|            | DR. NANAK KAKWANI<br><i>Professor, Gulati Institute of Finance and Taxation</i>                                       |
| Discussant | DR. MARITES M. TIONGCO<br><i>Full Professor, Carlos L. Tiu School of Economics, De La Salle University</i>            |
| Moderator  | DR. CHRISTOPHER JAMES CABUAY<br><i>Associate Professor, Carlos L. Tiu School of Economics, De La Salle University</i> |

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### PLENARY SESSION V

Growing and Strengthening the Middle Class Towards Realizing  
the AmBisyon Natin 2040 (NEDA-sponsored)

Monet Ballroom (2/F), 1:45-2:45 p.m.

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|                               |                                                                                                                                                                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message from<br>the Secretary | HON. ARSENIO M. BALISACAN<br><i>Secretary, National Economic and Development Authority</i>                                                                                                                                        |
| Presentation                  | Growing and Strengthening the Middle Class Towards<br>Realizing the AmBisyon Natin 2040<br><br>USEC. ROSEMARIE G. EDILLON<br><i>Undersecretary for Policy and Planning Group,<br/>National Economic and Development Authority</i> |
| Reactor                       | DR. GONZALO VARELA<br><i>Lead Economist and Program Leader, World Bank Group</i>                                                                                                                                                  |
| Moderator                     | ASEC. REYNALDO R. CANCIO<br><i>Assistant Secretary for Policy and Planning Group,<br/>National Economic and Development Authority</i>                                                                                             |

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# The Conference in Detail

## Plenary Session (8 November 2024)

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### PLENARY SESSION VI

#### Building Financial Security for Filipino Households Through Economic and Financial Literacy

(in celebration of Economic and Financial Literacy Week 2024)

Monet Ballroom (2/F), 2:55–3:55 p.m.

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Panelists FAITH CHRISTIAN Q. CACNIO  
*Principal Researcher, Bangko Sentral ng Pilipinas*

MS. BIANCA PEACHY SANICO  
*Editor-in-Chief, Ekonsepto*  
*Instructor, Department of Agricultural and Applied Economics,*  
*University of the Philippines Los Baños*

MR. RUBEN CARLO O. ASUNCION  
*Chief Economist, Union Bank of the Philippines*

ENGR. SYLVIA O. PARAGUYA  
*Chief Executive Officer, National Confederation of Cooperatives*

Moderator DR. TRISTAN A. CANARE  
*Deputy Director, Research Academy, Bangko Sentral ng Pilipinas*

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### CLOSING PLENARY LECTURE

#### Vision for the Philippines' Localized Economic Growth

Monet Ballroom (2/F), 4:00–4:45 p.m.

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Introduction of the Plenary Speaker DR. MARITES M. TIONGCO  
*Professor, School of Economics, De La Salle University*

Presentation Vision for the Philippines' Sustainable Economic Growth  
DR. KEIJIRO OTSUKA  
*Professor of Development Economics,*  
*Graduate School of Economics, Kobe University*

Moderator DR. CHRISTOPHER JAMES CABUAY  
*Associate Professor, Carlos L. Tiu School of Economics,*  
*De La Salle University*

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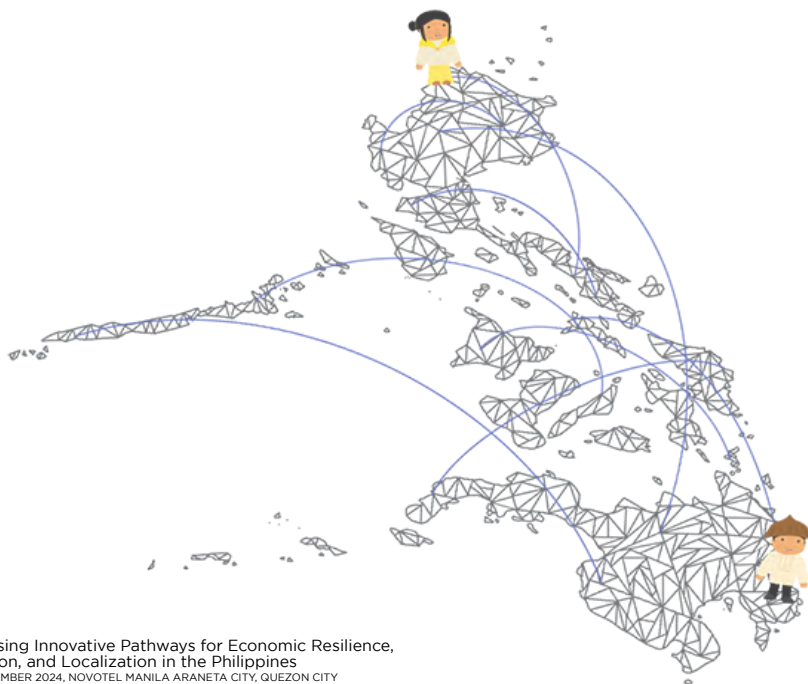
# The Conference in Detail

## Plenary Session (8 November 2024)

### CLOSING CEREMONIES

Monet Ballroom (2/F), 4:45-5:00 p.m.

|                                                          |                                                                                                                                                               |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oath-Taking Of Young Economists Honor Society Batch 2024 | DR. ALICE JOAN G. FERRER<br><i>Secretary, Philippine Economic Society<br/>Vice Chancellor for Academic Affairs,<br/>University of the Philippines Visayas</i> |
| Announcement of Election Results                         | DR. ALICE JOAN G. FERRER                                                                                                                                      |
| Closing Remarks                                          | DR. MARITES M. TIONGCO<br><i>Vice President and Conference Committee Chair,<br/>Philippine Economic Society</i>                                               |
| Master of Ceremonies                                     | DR. CHRISTOPHER JAMES CABUAY<br><i>Associate Professor, Carlos L. Tiu School of Economics,<br/>De La Salle University</i>                                     |



# **ABSTRACTS**

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# Plenary Sessions

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## KEYNOTE ADDRESS

### **Complementarities in Innovative Economic Policy Design**

Wendy Carlin, Ph.D.

*Professor of Economics, University College London*

Identifying sustainability, inclusion, local economic development and resilience as key components of a development strategy requires adopting a new economic benchmark model. Such a model brings the best of economic research from the past four decades to bear on these problems in a coherent way. I will argue that the state, the market and civil society offer complementary mechanisms to solve economic problems. Using illustrations from contemporary economic development, I will make the case for a new lens to frame some of the Philippine's development challenges. Economics and the economic development strategy need to be renewed together.

## PLENARY SESSION I

### **Governance for Local Socioeconomic Development: Best Practices and Prospects for Scaling Up**

This session features a panel discussion with current and former local chief executives from different local government units in the Philippines to discuss best practices and strategies in propelling local economic development towards resilience, inclusion, and localization. Panelists will share governance innovations that have been successful in fostering local economic development, challenges faced by LGUs in ensuring that marginalized sectors are actively included in development planning, and tools or mechanisms used by LGUs to measure the impact of local economic development initiatives on community resilience. Panelists will also discuss how LGUs can balance the need for rapid economic growth with the imperatives of social inclusion and environmental sustainability, as well as how local economic development can drive forward national aspirations for economic resilience and inclusive growth.

## PLENARY SESSION II

### **The Middle-Income Trap: World Development Report 2024 (WB-sponsored)**

Drawing on the development experience and advances in economic analysis since the 1950s, World Development Report 2024 identifies what developing economies can do to avoid the

“middle-income trap.” Lower-middle-income countries must go beyond investment-driven strategies—they must also adopt modern technologies and successful business practices from abroad and infuse them across their economies. Upper-middle-income countries need to accelerate the shift to innovation, by pushing the global frontiers of technology. This requires reconfiguring economic structures governing enterprises, labor, and energy use—in ways that enable greater economic freedom, social mobility, and political contestability.

### PLENARY SESSION III

#### Philippine Prospects in the Medium and Long term: Wishes and Reality (DLSU-sponsored)

The current administration has set very ambitious goals for the nation in terms of growth, income per capita, and poverty reduction. Some of these goals extend over the administration’s term. While some may be feasible, others appear to be mere wishes. What is the reality? This plenary session will feature a panel of experts who will discuss the likelihood that these targets be attained. They will provide an assessment of the Philippine economy in the medium and long run. They will approach the issue at hand from three angles. First, by looking at the structure of the economy, employment, productivity, and wages. What will these be in the coming decades? Second, by analyzing the structure of Philippine manufacturing. This is done by looking at what the vast majority of firms, MSMEs, produce and how productive they are. This will be contrasted with the 100 largest Philippine conglomerates, and also with regional and global benchmarks. Third, by reviewing the Philippine labor market. This is done by assessing the current distribution of workers across sectors, occupations, and education attainment. It also provides initial forecasts of labor demand and supply, highlighting potential surpluses or shortages in various sectors, with a special focus on manufacturing.

### PLENARY SESSION IV

#### Rethinking Poverty: Capability Deprivation and Living Income for a Decent Standard of Living

This plenary session integrates two key themes related to poverty and decent standard of living. First, building on Amartya Sen’s (1985, 1987, 1999) seminal work on functioning and capabilities, the first presentation critiques the prevalent multidimensional poverty indices that focus solely on capability deprivation. It argues that poverty must be when the essential capability failure is caused by inadequate command over resources through markets, public provision, or other non-market channels. The main message coming out of this presentation is that we cannot always identify poor persons by examining capability deprivation alone. Current indices, such as those developed by the UNDP (2020) and Alkire and Foster (2021), fail to account for the insufficiency of means available to individuals,

leading to the misidentification of poverty. Defining poverty from the capability perspective cannot be done independently of income or available resources to individuals. In this context, a new method to measure multidimensional poverty is proposed, which takes account of the insufficiency of means available to individuals. Meanwhile, the second presentation attempts to estimate the living income required for a typical family in the Philippines. In this context, living income refers to the annual income needed by a typical family to afford a decent standard of living which shall cover expenses on the following: 1) food; 2) health; 3) education; 4) housing, water, electricity, gas, and other fuels; 5) clothing and footwear; 6) transportation; 7) communication; 8) insurance; 9) recreation (travel); and 10) an extra amount for emergencies and miscellaneous items. Based on the estimates of living income, the profile of those who can afford this decent living standard is examined. The consumption patterns of these families will be compared with those of other income groups to provide a deeper understanding of the economic disparities that exist in the country. Together, these analyses provide a comprehensive understanding of poverty, emphasizing the need for both adequate capabilities and sufficient resources for a decent living standard.

## PLENARY SESSION V

### Growing and Strengthening the Middle Class Towards Realizing the *AmBisyon Natin* 2040 (NEDA-sponsored)

This session will examine the role of the middle class in achieving the long-term vision of *AmBisyon Natin* 2040 for the Philippines. It will explore the socioeconomic factors that contribute to the growth of the middle-class, including education, job creation, social safety nets, and equitable income distribution. Discussions will cover policy measures, financial inclusion strategies, and innovative approaches to support and expand the middle class as a driver of sustainable economic growth and development.

## PLENARY SESSION VI

### Building Financial Security for Filipino Households Through Economic and Financial Literacy (in celebration of Economic and Financial Literacy Week 2024)

This session, in observance of Economic and Financial Literacy (EFL) Week 2024, aims to link EFL with economic resilience, inclusion, and localization in the Philippines. Panelists coming from different sectors—government, academe, and private institutions—will discuss how economic and financial literacy contributes to financial behavior and financial security, and the role that educational institutions and the financial sector play in promoting these. The session will also tackle EFL programs and initiatives that could effectively address the needs of both rural and urban populations in the midst of a rapidly digitalizing financial landscape,

and with inflation and economic uncertainties impacting households. The session will also link EFL to the Philippine Development Plan's emphasis on financial inclusion and vision of a prosperous, middle-class society.

## CLOSING PLENARY LECTURE

### **Vision for the Philippines' Localized Economic Growth**

Keijiro Otsuka, Ph.D.

*Asian Development Bank Institute, Tokyo*

While high schooling level of working population is an important necessary condition for economic growth, it does not guarantee high and successful growth. Indeed, the Philippine economy is characterized by relatively high schooling level but low GDP per capita. While schooling is generally conducive to the formation of general human capital, the accumulation of specific human capital is also needed for economic growth. In my view, the failure of the Philippine economy stems from the failure to accumulate relevant specific human capital. My case studies have identified three common key factors promoting sustainable growth of high-performing East Asian countries, such as Japan, Taiwan, South Korea, and China. First is learning technology and management from abroad. Second is investment in human capital of business leaders and other major decision-makers to enhance their learning ability. Third is to generate multi-faceted innovation, encompassing technological and managerial innovations. I strongly recommend the Philippines to set up institutions to learn from abroad and provide training of management and technology to major decision-makers in the economy in order to stimulate innovations.

# Simultaneous Sessions

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## SESSION A1 Shaping a Resilient Future: SDGs, Energy, and SMEs in a Post-COVID World (DAP session)

### **Tracking Evidence-based Country Initiatives on Sustainable Development Goals using Foresight and Futures Thinking as a Lens towards World-Class Bureaucracies**

Lizan E. Perante-Calina, Chester B. Cabalza, Jessica L. Estrada-Noel,  
and Giovanni Z. Baena  
*Development Academy of the Philippines*

We employ a thematic analysis covering Sustainable Development Goals (SDGs) through scenario building, training, research, and technical assistance. In 2019, the Philippine Senate created a committee on SDGs, Innovation, and Futures Thinking to ensure legislative alignment with SDGs. We focus on how Foresight and Futures Thinking have gained traction in public administration and governance. As the academic arm of the Development Academy of the Philippines, the Graduate School of Public and Development Management has produced 52 research papers aligned with SDGs. By integrating strategic foresight, we propose an analytical model to transform bureaucratic systems for improved efficiency, transparency, and responsiveness. Our findings emphasize the critical role of SDG and Futures Thinking research in creating resilient, future-ready bureaucracies. This study contributes to the ongoing discourse on public sector transformation, particularly in AmBisyon Natin 2040, the Philippine Development Plan, and the Administration's 8-point Socio-Economic Agenda.

### **Impact of the COVID-19 Pandemic on Philippine Small and Medium Enterprises**

Majah-Leah V. Ravago, Monica D. Saliendres, Pauline Marie S. Villar,  
Ferdinand Del Rosario, Eunice Martin-Botero, Queenielyn I. Rodaje,  
Brian Jason H. Ponce, Mithi Maria D. Peñaranda, Jophanie G. Fermin  
*Development Academy of the Philippines*

This longitudinal study, conducted by the Asian Development Bank Institute (ADBI), the Asian Productivity Organization (APO), and implemented locally by the Development Academy of the Philippines (DAP), analyzes the impacts of COVID-19 on micro, small, and medium enterprises (MSMEs) in the Philippines from 2021 to 2024. Based on over 1,100 responses from MSME owners and managers via online surveys and phone interviews, it highlights the crucial role of government support in enhancing MSME resilience. The study identifies key

forms of assistance, such as financial aid and capacity-building programs, while pointing out gaps in support. A key theme is MSME digitalization, tracking their adoption of digital technologies, e-commerce platforms, and payment systems, which proved essential for business continuity. The study underscores MSMEs' resourcefulness and adaptability, offering insights into their resilience and recovery strategies. It also provides a roadmap for policymakers to enhance targeted support and foster a more inclusive, resilient, and digitally empowered MSME sector.

### **How COVID-19 Influenced Openness to Switching to Natural Gas and Solar in the Philippine Manufacturing Industry**

Majah-Leah V. Ravago<sup>1</sup>, Karl Robert L. Jandoc<sup>2</sup>, Mithi Maria D. Peñaranda<sup>1</sup>,  
Brian Jason H. Ponce<sup>1</sup>, Raul V. Fabella<sup>2</sup>, Renzi G. Frias<sup>3</sup>

*<sup>1</sup>Development Academy of the Philippines, <sup>2</sup>University of the Philippines School of Economics, <sup>3</sup>University of the Philippines School of Statistics*

This study examines the energy transition in the Philippine manufacturing industry, comparing the likelihood of SEZ firms switching to solar, a renewable energy source, versus natural gas, a potential “bridge” fuel, in a post-pandemic context. The impact of COVID-19 on firms' decisions is a key factor, along with determinants such as heating equipment, electricity sources, perceived knowledge, and cost-competitiveness. Additional variables include retrofitting costs and environmental concerns. Using probit, logit, multinomial logit, and linear probability models, results show that firms more affected by COVID-19 are less likely to switch to natural gas but more inclined to adopt solar. Solar is perceived as more familiar, offering quicker cost savings and environmental benefits during financial strain, while natural gas is seen as a longer-term, more expensive investment. Consistent with Ravago et al. (2021), heating equipment and perceived cost-competitiveness significantly increase openness to both fuels, but perceived knowledge only influences openness to natural gas, given its specialized nature.

### **The Role of Retrofitting and Infrastructure in Switching to Natural Gas**

Majah-Leah V. Ravago<sup>1</sup>, Karl Robert L. Jandoc<sup>2</sup>, Raul V. Fabella<sup>2</sup>,  
Mithi Maria D. Peñaranda<sup>1</sup>, Renzi G. Frias<sup>3</sup>

*<sup>1</sup>Development Academy of the Philippines, <sup>2</sup>University of the Philippines School of Economics, <sup>3</sup>University of the Philippines School of Statistics*

We analyze the role of technical characteristics, perception, and environmental considerations in influencing firms' decisions to switch to natural gas, using Logit, Probit, and LPM regressions. Consistent with Ravago et al. (2021), we find that heating equipment, cost competitiveness, and knowledge of natural gas positively drive firms to switch, with some firms more likely to adopt than others. Expanding the model by incorporating



additional predictors covering equipment retrofitting, infrastructure, electricity sources, and environmental awareness, we show that higher retrofitting costs slightly deter switching while the presence of existing infrastructure like fueling stations significantly boosts the odds of switching. In addition, we find that reliance on large electricity suppliers and cooperatives as well as familiarity with renewable energy are associated with a reduction in a firm's predicted marginal probability in making the switch while a firm's knowledge on natural gas increases it. Lastly, we show that the probability of switching is heterogeneous across firm types.

## SESSION A2

### Competition and Labor Market Power in the Philippines (PCC session)

This session highlights ongoing projects revolving around the concept, estimation, and consequences of labor market power in the Philippines. Moving beyond the traditional focus of labor market research in the Philippines on “supply-side” issues (e.g., education, skills, productivity), these papers collectively feature the less-explored “demand-side” of labor markets and demonstrate the manifestations and implications of firms’ (excessive) exercise of term-setting power.

#### **Concentration, Representation, and Bargaining in Local Labor Markets**

Edgardo Manuel Miguel Jopson  
*Philippine Competition Commission*

In this paper, we use firm-level register data from the 2018 Census of Philippine Business and Industry (CPBI), covering 65,000 establishments from the formal sector of the economy. The CPBI is conducted by the Philippine Statistics Authority (PSA), collecting information on the performance of the formal sector in the Philippines, and is regularly conducted every five years to collect and generate data on firm-level economic activity. In-person access was necessary to analyze firm-level information as the disaggregated census cannot be made available to the public by PSA policy. We use data on the firms’ reported labor costs (payroll), employment, subcontracted employment, and revenues, as the basis for estimating two concentration metrics: HHI and CR4. This paper demonstrates associations between concentration and unionization and bargaining outcomes across broadly defined local labor markets in the Philippines. Results demonstrate that higher levels of employment concentration are associated with lower probabilities of having any union and having any new CBA registrations. Further, concentrated labor markets also have lower union membership densities on average.

## **The Incomplete Leap: On the Transition from Union Formation to the First Collective Agreement**

Edgardo Antonio Suguitan  
*University of the Philippines Baguio*

In decentralized systems where unionization and bargaining occur at the establishment level, what explains the (speedy) transition from union formation to the signing of the first collective agreement? While prior evidence in some developed countries (e.g. United States) estimates this transition to be a little over a year, little to no evidence exists in other contexts where unions play a less prominent role. We analyze the Philippines where national unionization and collective bargaining coverage rates are relatively low. Using methods from survival analysis on novel register data of all new union and collective bargaining registrations since 2016, we descriptively demonstrate that: (1) median union membership density is low at 40%; (2) only 20% of the 858 new union registrations have successfully registered a contract; and (3) unions with higher densities, that are independent, and in the manufacturing sector experience elevated transition rates to a collective agreement.

## **Chains that Bind: On the Job Search and Life Course Consequences of Restrictive Covenants**

Benjamin Radoc Jr.  
*Bangko Sentral ng Pilipinas*

Restrictive covenants (RCs) in job contracts serve as de facto chains restricting workers' current and future mobility by preventing them from either prematurely exiting the firm or working for its competitor (or both) within a limited period post-employment. A growing strand of the literature has analyzed its effects on individual and aggregate wages and employment as well as firm-level innovation and profitability. In this project, we operationalize RCs as non-compete, non-solicitation, training repayment, and monitoring and enforcement clauses embedded in hypothetical job contracts. Using a conjoint design, we test the effects of these RCs on an array of subsequent outcomes including job search, satisfaction, and family formation intentions. Findings using preliminary data from highly-educated labor market entrants in the Philippines lend evidence to the adverse effects of certain types of RCs. While non-competes substantially restrict within-industry job search, all types of RCs negatively affect job satisfaction, marital intentions, and fertility intentions. Our results echo the role of labor and antitrust regulations in abating the harms of excessive and restrictive term-setting in employer-employee contracts, consequently breaking the chains that bind.

## Too Little, Too Weak? Paid Parental Leaves and Workers' Bargaining Response

Vincent Ramos

*University of Southampton*

When legal minimum standards for work and family benefits are deemed insufficient, how do workers respond and compensate? Looking at advanced economies points us to an idea—unionization and collective bargaining (CB) are ways to afford workers better conditions and increase benefit entitlement than what is statutorily guaranteed. Whether or not this “success story” applies in other contexts with decentralized systems for workers’ representation and arguably weaker enforcement of parental leave provision, as is the case in many developing countries, is a persistent gap in the literature partly owing to limited data availability. To address this, we construct a novel dataset of the provisions of all workplace-level CBAs in the Philippines over 6 years to: (1) descriptively show the prevalence of paid parental leaves (PPLs) in CBAs and (2) analyze the causal effects of a 2019 maternity leave reform, which increased benefit entitlement from 7-8 weeks to 15 weeks, on the inclusion of PPLs in CBAs using a quasi-experimental design. Our findings show that around 65% of CBAs contain reinforcing provisions that merely restate the statutory leave entitlements, while only 5% contain augmenting provisions that provide higher leaves. In terms of potential mechanisms, semi-structured interviews with union leaders lend support to the idea that where compliance and enforcement of family policy laws are perceived as weak, redundancy is as much of an objective as augmentation is in the collective bargaining process.

## SESSION A3

### Central Banking in the Post-Pandemic Era: New Trends in Inflation, Financial Stability, and External Factors (BSP session)

#### The Changing Effect of Rice and Energy Price Inflation on General CPI Inflation: Evidence from the Philippines

Harold Glenn A. Valera<sup>1</sup>, Mark J. Holmes<sup>2</sup>, Vic C. Delloro<sup>1</sup>

<sup>1</sup>*Bangko Sentral ng Pilipinas*<sup>2</sup> *University of Waikato, Hamilton, New Zealand*

We examine the impact of rice and fuel prices on overall inflation across 74 Philippine provinces using a panel quantile regression model from August 1996 to April 2024. Of interest is understanding the consequences of rice tariffication and the monetary policy shift to inflation targeting as well as the association with poverty and rice self-sufficiency levels. Beyond documenting the evidence of the greater impact of rising rice and fuel prices during times of higher overall inflation, our results indicate that this differentiation is lessened with both inflation targeting and rice tariffication regimes. Our results also show that the impact of rice price inflation is higher for more impoverished provinces and lower for rice deficit provinces. Moreover, the effects of rice (fuel) prices are higher (lower) for the Philippines than those in Indonesia, India, and Thailand.

## **The Impact of Foreign Equity Infusion on Profitability and Asset Quality of Philippine Rural Banks: A Preliminary Analysis**

Hazel C. Parcon-Santos, Marie Edelweiss G. Romarate,  
Joan Christine S. Allon-Pineda, Carl Francis C. Maliwat,  
and Jose Adlai M. Tancangco  
*Bangko Sentral ng Pilipinas*

In 2013, the rural banking industry in the Philippines was liberalized by a law that allowed non-Filipino citizens to own, acquire, or purchase up to sixty percent of the voting stocks in a rural bank. This study provides an initial assessment of the impact of foreign equity infusion in rural banks by examining whether rural banks with foreign equity perform significantly better than purely Filipino-owned banks in terms of profitability and asset quality. Empirical estimates reveal that the presence of foreign investors and their capital infusions did improve the profitability and asset quality of the recipient rural banks, but these improvements were found only in selected rural banks.

## **Do Remittances Shape Household Spending?: Evidence from Migrants' Household Survey**

Veronica Bayangos and Cymon Kayle Lubangco  
*Bangko Sentral ng Pilipinas*

Remittances play a crucial role in supporting households and rural communities, particularly in emerging market countries, like the Philippines. However, the 2014 “de-risking” policies and the 2020 COVID-19 pandemic have affected migration, employment, and remittance flows. Central banks are now working to better understand these shifts. This study examines how remittance recipients use these funds and their impact on household consumption. Through unique surveys of migrant households and banks, findings show that cash remittances significantly boost household spending. The growth of remittances is positively influenced by the number of OFWs, unemployment rates, and peso depreciation, while high wages and transaction costs reduce remittances. These new results are consistent across multiple robustness tests.

## **Estimating Exchange Rate Equilibria and Misalignment in the Philippines**

Juan Luis F. Cayanga, Dennis D. Lapid and Christofer A. Martin  
*Bangko Sentral ng Pilipinas*

The study aims to identify economic fundamentals that drive movements in the exchange rate, as well as to assess and estimate misalignment in the peso. Building on the Purchasing Power Parity (PPP) theory and the Uncovered Interest Rate Parity (UIP) condition, this paper explores the short-run Behavioral Equilibrium Exchange Rate (BEER) and the long-run Permanent

Equilibrium Exchange Rate (PEER) approaches to examine the fair value of the Philippine peso given movements in the country's economic fundamentals. Using an Autoregressive Distributed Lag (ARDL) model, initial findings suggest that the magnitude of misalignments from the BEER has generally declined relative to the misalignments observed from 2002 to 2007. Meanwhile, the peso exhibited undervaluation for nine of the twelve months in 2023, which may be attributed to broad US dollar strength during the period amid the high-for-longer interest rate rhetoric of the US Federal Reserve. Meanwhile, relative to its long-run fair value, the misalignments from the PEER showed mixed trends from 2002 to 2023, reflecting macroeconomic fundamentals and country-specific developments.

### **Making Sense of China's Exchange Rate Policy**

Calla Wiemer

*American Committee on Asian Economic Studies*

The paper covers the topic of exchange rate policy for an edited volume on the Chinese economy to be published in 2025 as part of the SAGE Handbook of Modern China series. Part I presents a chronology of the major stages of reform from 1979 to the present. Part II, titled "Dissension in the Gallery", reviews the arguments of observers charging "currency manipulation" and the opposing views in support of a pegged exchange rate then takes up more recent criticism of China's unconventional and nontransparent methods of currency market intervention off the central bank balance sheet. Part III starts by noting that since revising its exchange rate classification system in 2009, the IMF has reclassified China 12 times, which gives the appearance of rather erratic policymaking. A more careful analysis, however, suggests an overarching policy framework that involves responsiveness to circumstances, trading off flexibility and stability subject to judgement. Captured by the metaphor "leaning against the wind", the approach has been honed in the Emerging East Asia region and China fits the mold. A textbook treatment may be found in my *Macroeconomics for Emerging East Asia* (Cambridge University Press, 2022).

### **SESSION A4**

#### **Subsidiarity and Collective Action for Food Security, Nutrition and Resilience**

The session, as the session title indicates, will examine pathways to food security that highlight nutrition and resilience, in the context of a governance framework marked guided by the principles of subsidiarity and collective action. The first paper provides context by clarifying people's understanding of food security as a primary goal of society, and examination of misconceptions about food self-sufficiency vs. food security, viewed with a historical perspective. The second paper examines the role and importance of cooperatives in raising productivity and incomes in the Philippine agricultural sector, which are vital

elements in achieving food security. The third paper examines the national agriculture and fisheries extension system, particularly in the context of improving the devolution mechanism in agriculture via the province-led agriculture and fisheries extension system (PAFES) that was piloted and rolled out by the previous administration.

### **Food Security in the Philippines: Facts, Challenges and Imperatives**

Cielito F. Habito

*Brain Trust Inc.*

It is important to clarify people's understanding of the notion of food security, which is often confused with food self-sufficiency with undesired results that run counter to attaining true food security. The pursuit of food self-sufficiency via a policy of undue isolation of domestic food markets from foreign competition has led to the undesired result of widening the gap between domestic food prices and international (i.e., border) prices, to the detriment of the wide mass of Filipino consumers, especially the poor, who include rice farmers themselves. Across ASEAN, the Philippines ranks among the lowest in the Global Food Security Index (GFSI), outranking only Cambodia and Laos. The paper concludes that the durable way to attain food security is by providing well-conceived and non-distortive assistance to farmers that will widen their choices; expand their access to technology and productive inputs; improve their capabilities as farm entrepreneurs, not mere tillers; and facilitate their access to markets and greater value-adding.

### **Agricultural Cooperatives in Philippine Agricultural Development: A Policy Background Paper for an Agri-cooperatives Development Agenda**

Roehlano M. Briones

*Philippine Institute for Development Studies/Brain Trust Inc.*

In agricultural development, cooperatives are seen as a vehicle for realizing collective action, economies of scale, strengthening bargaining power, and professionalization of organizational management. The economic theory of cooperatives points to potential advantages of the cooperative form in realizing a plurality of objectives (beyond profit maximization); as well as addressing problems in contract enforcement, asymmetric information, and imperfect competition. Secondary and primary data on cooperatives show that (1) A small minority of farmers and fisherfolk belong to a cooperative; (2) most agri-coops are limited in geographic scope, (3) are in the micro to small enterprise category, (4) have a median age of 11 years, (5) have manageable debt, (6) pay out substantial amounts as members' benefit, but (7) are just about breaking even. Against other Asian countries, agri-coops remain far from serving as viable economic enterprises for most farmers, fisherfolk, and rural workers in the Philippines. The state must go beyond registering and regulating cooperatives, and actively

promote cooperatives. This includes allocating public funds to organize and strengthen agri-cooperatives, and fostering commercial partnerships with modern agribusiness.

### **Doing Agriculture and Fisheries Devolution Right: An Imperative for Food Security and Nutrition**

Ella S. Antonio

*Brain Trust Inc.*

The National Extension System for Agriculture and Fisheries (NESAF) is a means to improve productivity and food security. It was appropriately designed as a partnership and coordination platform among national government agencies, local governments, and non-government (private sector) entities. In line with the Local Government Code, the role of LGUs in NESAF is most critical on the ground. This role has been highlighted and made more vital by the establishment and mainstreaming of Province-led Agriculture and Fisheries Extension Systems (PAFES) in DA operations in 2020 and the Mandanas-Garcia ruling in 2021. Under PAFES, provincial LGUs, and their local private partners are to lead the delivery of agriculture and fisheries extension services to farmers, fisherfolk, and agribusiness entrepreneurs. The national government is to enhance this role by providing the policy environment and facilitating its execution by making needed resources and other technical available to LGUs. This paper noted that there have been many successes in agriculture and fishery extension but there are still many challenges that constrain its contribution to achieving food security.

## **SESSION A5 Poverty Alleviation and Social Protection**

### **The People's History of Poverty, Poverty Thresholds, and Poverty Gaps**

Mahar K. Mangahas

*Social Weather Stations*

Since 1985, Social Weather Stations ([sws.org.ph](http://sws.org.ph)) has provided a people's history of many dimensions of the well-being of the Filipino people. The economic dimension is well covered by the SWS surveys of economic deprivation (Mangahas 2018). The people's sense of their poverty and food-poverty, their thresholds of poverty, and their gaps from the thresholds, are surveyed quarterly (SWS 2024), unlike the official statistics, which are biennial (before 2023, triennial). The incidences of self-rated poverty are invariably much larger than those of official poverty, which are based on unrealistic, top-down poverty lines (Yu 2024). On the other hand, in June 2024, 58% of families nationwide rated themselves as Poor, with a median home-expense (not income) threshold of P15,000 per month. The SWS data are a high-quality alternative for contemporary and historical analysis of poverty.

## **Unbundling the Bundle: A Quasi-Experiment on the Effects of Lockdown Policies and Cash Transfers during the COVID-19 Pandemic on Household Income and Consumption**

Rachelle Angela C. Ramos  
*The London School of Economics and Political Science*

The pandemic marked one of the biggest global shocks since the post-war period and an unprecedented scale-up in social protection. This paper analyses the impact of the lockdowns and cash transfers implemented by the Philippine government during the COVID-19 pandemic on household income and consumption using data from the merged Labor Force Survey and Family Income and Expenditure Survey. The empirical strategy employs a difference-in-differences and triple difference estimation which exploits the variation caused by the lockdown and the cash transfers. The estimates suggest that the lockdown reduces the income and consumption of non-cash transfer beneficiaries. Nevertheless, cash transfers are found to be an effective policy to mitigate these adverse effects for low-income households.

## **An Updated and Contextualized Threshold Family Income (TFI) Study for General Santos City**

Carmelo H. Enriquez  
*Notre Dame Business Resource Center Foundation, Inc.*

The paper adds to the scant literature on estimating the cost of living and quality of life measures focusing on areas outside the developed urban centers like Manila, Cebu, or Davao. It builds on the TFI, a concept developed by the Center for Research and Communication (CRC) in 1983, which attempted to compute an income indicator that provides a minimum of comfort and convenience for a reference family of 5 in Metro Manila. Interestingly, the Notre Dame Business Resource Center Foundation, Inc. started computing for the TFI in 1985 using assumptions that are most applicable to General Santos City conditions. It draws upon a comprehensive review of the literature and empirical data to update the assumptions that have become outdated and need to be revised especially coming off the pandemic in 2020 which has admittedly altered consumption patterns. One key output of the study is an estimated range of income that a family of 5 in General Santos City needs to be able to live with a minimum of comfort and convenience using 2024 prices. The study will first review the assumptions used in the previous TFI estimates and come up with the updated assumptions in the context of General Santos City realities. Primary data will be gathered to obtain the most recent prices that will be applied to compute for the low and high expenditure estimates for Food, and non-Food (such as Clothing, Housing, Transportation, Education, Housekeeping, Personal care, Health, and Recreation). The computed TFI will provide inputs and directions to government and policy makers in formulating social programs while serving as a benchmark for employers and the private sector regarding a living wage that provides workers with the minimum comfort appropriate for families to maintain their dignity.



## SESSION A6 Trade, Economic Integration, and International Relations

### **Impact of Agricultural Trade Liberalization on Food Consumption Patterns in the Philippines**

Caesar B. Cororaton, Mitzie Irene P Conchada, Ma. Rafaella T. David,  
Cara Isabel P. Del Rosario, Kate Alexandra R. Fabro,  
Rona Mae Paula H. Martin, Marites M. Tiongco and Ella C. Oplas  
*De La Salle University Manila*

The study analyzed the relationship between agricultural trade measures, through tariff and non-tariff measures (NTMs), and Filipino household expenditures shares for rice, meat, fish, and dairy and eggs using Seemingly Unrelated Regression and Almost Ideal Demand System. Simulations using a Computable General Equilibrium (CGE) were used to measure welfare changes to determine the effects of price reductions geared toward trade liberalization. The study constructed a pseudo-panel of 39,733 cohorts based on household time-invariant characteristics to identify changes in food consumption patterns across income deciles during 2009, 2012, 2015, 2018, and 2021.

### **The Impact of Exchange Rates and Monetary Policy on Exports: Evidence from the RCEP**

Jose Adlai M. Tancangco and Hazel C. Parcon-Santos  
*Bangko Sentral ng Pilipinas*

This study explores the effects of exchange rates and inflation targeting framework on goods and services exports among RCEP countries. We find that domestic currency depreciation enhances exports, with a larger impact on goods than services as foreign value-added dilutes the impact for the latter. Additionally, trading partners with floating exchange rate regimes experience reduced services exports. Notably, exchange rate volatility does not significantly affect overall export levels. Exporters adhering to an inflation-targeting framework see increased exports in both categories, particularly in services. Furthermore, actual inflation rates are crucial: lower inflation in the exporting country and higher inflation in the partner country enhance goods exports. These findings highlight the important roles of exchange rates and monetary policies in shaping trade dynamics within the RCEP region.

### **International Integration as A Catalyst of the Green Transition in the Philippines**

Stefania Lovo<sup>1</sup>, Anthony Sabarillo<sup>2</sup>, Gonzalo Varela<sup>3</sup>  
*<sup>1</sup>University of Reading, <sup>2</sup>University of the Philippines, <sup>3</sup>World Bank*

This paper examines how international integration through trade and investment contributes to firm-level energy efficiency. The analysis covers a period with substantial changes in foreign

ownership status and entry into exporting. It applies a TWFE approach to the Philippine manufacturing census for the period 2012-2018, to estimate export participation and foreign acquisition on energy intensity. The results suggest that both exporting and FDI are associated with increases in energy consumption, but also with improvements in energy efficiency. It is firm in energy-intensive sectors and located in regions with relatively high energy prices that drive the increases in energy efficiency. We also find that the origin of investment and the destination of exports matter, with advanced economies leading to greater improvements in energy efficiency. These results have implications on the role of integration in global markets for accelerating the transition into more energy-efficient production models.

### **De-risking of the Philippines from China: Exploring Its Feasibility and Economic Considerations**

Malcolm Dowell C. Domingo  
*Armed Forces of the Philippines (retired)*

The tensions between the Philippines and China over the West Philippine Sea place the Philippine economy in a precarious position, considering the Philippine economy's heavy reliance on China compared to China's relatively low reliance on the Philippines. This imbalance provides China the economic leverage over the Philippines as demonstrated in the aftermath of the Panatag Shoal incident in 2012. This pernicious economic risk is further amplified by the Taiwan issue, wherein the Philippines is indirectly involved due to its geographical proximity to Taiwan and its defense treaty with the United States. Consequently, the idea of reducing the Philippines' dependence on China known as "de-risking," makes perfect sense from a political and military perspective. However, from an economic standpoint, de-risking necessitates a more careful analysis and a surgical/nuanced approach as it may run counter with the Philippines' goal of achieving economic resilience.

## **SESSION A7**

### **Crafting New Teaching Resources and Updating Our Curriculum in Economics: Examples from Econometrics, Macroeconomics, and Finance**

What distinguishes today and the good ol' days is the deluge of information available to our students. It is easy for a student, and even teachers, to be overwhelmed or to just take the information as is. Our teaching needs to reflect this reality by slowly incorporating materials we do not normally see in textbooks or even in our past teaching materials. This session provides a broad range of materials suitable for both undergraduate and graduate students. And shows how research and teaching could feed into each other. We hope this session encourages you to join us or collaborate with us in developing new teaching resources for our future students.

## **Explaining Bond Pricing Principles to Undergraduates Using Historical Connections and Two New Expositions**

Stephanie L. Chan and Mengxue Qiao

*De La Salle University Manila*

We provide mathematical expositions and historical context that are suitable for students taking a first course in finance of two oft-cited but ill-explained (coupon) bond pricing principles. The first principle we explore is how the price of a bond relative to its face value reveals the relationship between the coupon rate, yield to maturity, and current yield. The second principle we explore is how prices of premium and discount bonds converge to their face value as maturity approaches. We show these relationships mathematically using only high school algebra and definitions found within introductory bond pricing lectures and trace their presence in textbooks in finance, accounting, and actuarial sciences.

## **Development of an Open Economy Aggregate Supply Curve for Intermediate Macroeconomics**

Dickson Lim

*De La Salle University Manila*

For an open economy, the standard model used in intermediate macroeconomic textbooks is the IS-LM-BP model, an extension of the IS-LM model for international trade. When assumptions of price rigidities are relaxed, an aggregate demand (AD) curve is then derived and macroeconomic policies are analyzed using the AS-AD model. However, most references in intermediate open economy macroeconomics cover only an open economy AD curve with an assumption of a closed economy aggregate supply (AS). There is then a gap within macroeconomic pedagogy as open economy aggregate supply is often covered in advanced macroeconomic courses, with limited undergraduate foundations. This paper develops an open economy aggregate supply model at the level of intermediate macroeconomics with the aim of introducing modeling features from advanced macroeconomics to an undergraduate audience. The paper then extends the standard closed economy AS-AD model with open economy features and utilizes the model to evaluate several macroeconomic policies within an open economy context.

## **Seven Examples to Better Illustrate the Method of Moments to Undergraduates**

Markus Fritsch, Andrew Adrian Pua, and Joachim Schnurbus

*De La Salle University Manila*

Undergraduate statistics courses in business, economics, finance, and many other disciplines typically spend more time on least squares and maximum likelihood estimation relative to the method of moments estimation. We offer seven examples showcasing the range of

applications of method of moments estimation so that students and instructors get earlier exposure to ways of argumentation essential in understanding contemporary econometric practice. We propose that instructors of undergraduate students of all disciplines introduce the method of moments at an early stage when coordinating the teaching of key statistics courses, along with service-type statistics courses at their institutions. We believe that it is inevitable to spend more time on the method of moments to expose students earlier to themes such as the distinction between prediction and causal inference, semiparametric methods, coping with the effect of (high-dimensional) nuisance parameters, measurement error, and the combination of different sources of “information” used to estimate parameters of interest.

## SESSION B1

### Empowering Communities through Innovative Solutions and Inclusive Growth and Resilience Strategies in the Agriculture, Aquatic, and Natural Resources (AANR) Sector (PCAARRD session)

#### **Natural Capital Accounting and PENCAS: Can LGU’s Comply?**

Agustin L. Arcenas, Roxanne A. Banalo, Lea May DR. Aguila,  
Princess Diane M. Lavarnez, and Don Benito Rimas  
*University of the Philippines Los Baños*

The Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act (Republic Act No. 11995) was passed in 2024. It aims to integrate the value of natural resources and ecosystems into national economic planning and to promote informed decision-making by incorporating environmental concerns into economic policymaking. One of the key components of the PENCAS Act is the role of the local government units in the creation of the natural capital accounts (NCA) as the LGUs are expected to collect local data on natural resources and ecosystems. While much attention and pledges for financial assistance have been focused on the national agencies such as the PSA and the DENR for their role as stipulated in PENCAS, there has been little attention to the LGUs which are the partners in making PENCAS succeed.

This paper delves into the question of whether LGUs can perform the tasks mandated under PENCAS and reports the experience of a PCAARRD-funded research and training initiative in preparing three pilot LGUs for the task of creating natural capital accounts. The findings indicate that different LGUs have different degrees of preparedness and that training them to boost their capacity to undertake NCA requires going beyond the traditional capacity-building programs, with mentoring and coaching as part of the training design. Ultimately, with sufficient financial and technical assistance, even the least technical LGUs can create their

own NCA and can therefore comply with the PENCAS directive. The introduction of an NCA calculating tool has the potential to boost compliance but only if the calculator is calibrated to the available data that the LGU has access to.

### **Development of Sustainable and Inclusive Value Chains for Selected Value Chains in Laguna**

Melodee Marciana E. De Castro, Jayson S. Cabral, Maria Noriza Q. Herrera,  
Remund Jordan D. Labios, John Julius B. Manuben, Cherry Lou R. Nunez,  
Diana O. Agcaoili, Elaine N. Navasero, Diane Joy V. Garino,  
and June Carlo D. Parducho  
*University of the Philippines Los Baños*

Bittergourd, rice, and tilapia value chains play significant roles in environmental sustainability. Rizal, Laguna is characterized by a suitable climate, fertile soil, and varied landscapes suitable for the cultivation of bittergourd and other high-value crops prone to typhoons and landslides. Pila is the second largest municipality for rice cultivation but is susceptible to drought. Calamba City located in the Calabarzon region which encircles Laguna Lake suitable area for freshwater fish production but is prone to risks of typhoons and flooding. Surveys, interviews, focus group discussions, and stakeholder consultations to draw a complete picture of the value chains. The project team partnered with smallholder farmer associations and cooperatives to unveil the practices and unique challenges faced. These are the Sto Nino Agroforestry Inc., San Miguel Arkanghel Pook Vegetable Farmers Association, Samahan ng mga Maghahalaman sa Brgy Tala, Rizal Laguna, Entablado Vegetable Farmers Associations, Laguan Vegetable Farmers Association in Rizal, Laguna; Pila Laguna Agricultural Cooperative and Samahan ng mga Organikong Magsasaka ng Pila Agricultural Cooperative, and Calamba Fisherfolks Producers Cooperative in Calamba City. Among the problems identified are high costs of inputs, pests, and diseases, and heavy metal contamination. The Quick Resource Appraisal and Risk Management Plan were used to identify the gaps and develop interventions, training, and inclusive business models. Among the interventions made were using SandT solutions by providing rapid test kits, soil test kits, leaf color charts, biofertilizers, and training for the production of bokashi balls. Value chain analysis was used to identify opportunities for innovation and interventions to improve overall production efficiency. The cost and return analysis was used as the basis for proposing solutions to enhance profitability. Stakeholders' mapping was applied to determine parties of interest and influence on the production processes of partner farmer groups. This facilitated the identification of potential areas of collaboration between and among stakeholders. Comprehensive capacity-building trainings were designed and implemented among farmer groups. Finally, inclusive business models for the selected value chains were proposed and initiated.

## **The Promise and Potential Pitfalls in Promoting Co-production for Sustainable Nature-Based Livelihoods: Insights From the CP4SL Project**

Jennifer Marie S. Amparo, Emilia S. Visco, Maria Emilinda T. Mendoza,  
 Dhino B. Geges, Irene R. Tanzo, Danesto B. Anacio, Alvaro N. Calara,  
 Ron Jay P. Dangcalan, Klein R. Fernandez, Ana Christina M. Bibal,  
 Marie Bernadette C. Apayor, Diana A. Torio,  
 Alma Katrina Blesilda M. Gonzales, Samantha Gabrielle R. Baril,  
 Iarra Mae D. de Silva, Allysa Mae P. Gargarino, Christian M. Balba,  
 Alvin James V. Gonzales, Benjamin S. Mercado,  
 Eva Marie Connie Ponce De Leon and Jerone Avel S. Cansino  
*University of the Philippines Los Baños*

Community engagement in the process of knowledge production, technology design, and community development interventions such as livelihood programs is recognized as critical for sustainability and socio-economic development. Co-production is one of the key community engagement approaches that is gaining critical acceptance in implementing transformational change. Although not new, its application has expanded in sustainability initiatives and socio-economic development projects. The promise of co-production includes the promotion of innovation; effectiveness and efficiency; equity; and individual and community wellbeing. However, certain pitfalls such as lack of focus on power imbalances, cooptation, and unintended consequences such as multiple burdens could negatively impact a program. This paper will highlight the key insights gained from the DOST-PCAARRD SERD-supported project that aimed to assess co-production pathways and impacts on gender and sustainability dynamics in three case sites in the Philippines. With three DOST-supported livelihood project cases with indigenous peoples in the country, we see that these livelihood projects introduced a combination of traditional, introduced, and revitalized crops across varying institutional, historical, and ecological contexts. The projects manifested different levels of community engagement from “inform”, “consult”, and early steps towards “coproduction”. There were 13 facilitating factors and 11 hindering factors for stakeholder engagement to co-production identified across the case studies. The presentation will also highlight key policy recommendations for operationalizing co-production in nature-based livelihoods in communities.

## **Impact Assessment of Floods and Droughts in Selected Agricultural Municipalities in Laguna: A Transdisciplinary Approach**

Maria Angeles O. Catelo, Myra E. David, Patricia J. Sanchez,  
 Mona Liza F. Delos Reyes, Agnes C. Rola, Jaimie Kim B. Arias,  
 Maria Cristina A. Alvarez, Jessa O. Aquino-Cando, Therese R. Olviga,  
 Macrina G. Umali, Catherine B. Gigantone, Ma. Helen F. Dayo,  
 Christine Jame E. Ramacula, and Paul Edrine C. Mapoy  
*University of the Philippines Los Baños*

This transdisciplinary project investigates the socioeconomic effects of floods and droughts in the agricultural municipalities of Bay, Pila, and Sta. Cruz, Laguna, with a particular focus on gendered risk management and disaster response. The primary objective is to quantify the social and economic losses resulting from these disasters and to propose collaborative management strategies aimed at enhancing community resilience and agricultural sustainability.

Utilizing an end-to-end research framework that integrates scientific, engineering, and socio-economic approaches, the study employs Geographic Information Systems (GIS) and Remote Sensing (RS) to identify significant flood events in Laguna from 2013 to 2020, notably during Typhoon Ulysses. A sample of 349 households was surveyed across 17 barangays, including fisherfolks, rice farmers, and high-value crop farmers. Vulnerability assessments and empirical flood damage estimations were conducted using a flood damage function. Local government units (LGUs) and barangay officials participated in monthly meetings and FGDs from June 2022 to December 2023 to formulate local strategies.

During Typhoon Ulysses, flood impacts were significant, with farmers reporting an average flood height of 10 inches, and rice farmers experiencing an average of 29 inches. Flooding durations were extensive, lasting an average of 11 days for all farmers, with rice farmers facing prolonged submersion for about 30 days and fisherfolks for approximately 43 days. Total damages for affected respondents amounted to Php 3,412,600, excluding additional losses from wind damage. Regression analysis indicated that crop damage escalated with flood duration, and fisherfolks also reported increasing house damage costs related to flood duration and height.

The study found that farming communities in Bay and Pila are moderately vulnerable to flooding, while Sta. Cruz displays varied vulnerabilities. Key challenges identified include inadequate financial assistance, inefficient relief distribution, and a lack of gender-sensitive infrastructure. Monthly focus group discussions revealed issues such as poor drainage systems and waste disposal leading to flooding. Interestingly, women in farming households exhibited greater empowerment in decision-making regarding healthcare and disaster evacuation compared to their counterparts in fishing communities.

From 2017 to 2022, only 18% of respondents reported experiencing drought, complicating forecasting due to reliance on the Standard Precipitation Index (SPI). A significant proportion of fisherfolks and rice farmers encountered drought, particularly in March, April, and May. The project emphasizes the need for more agrometeorology stations and trained personnel for effective monitoring, forecasting, and early warning.

Despite LGU interventions during Typhoon Ulysses, vulnerabilities persisted among farmers and fisherfolks. An integrated response is advocated as an effective management strategy for disaster preparedness. Access to flood and crop insurance is crucial for enhancing adaptive

capacity. Ultimately, the project calls for a province-wide drainage master plan to improve flood management across municipalities.

**Watershed-Based Integrated Land Use Planning Approach (WILUP):  
Innovative Framework for Inclusive Growth**

Rex Victor O. Cruz, Mario U. Tercero, Vida Q. Carandang, Lorena Sabino,  
Marie Jessica Gabriel, Avril Adrienne Madrid, Paola Andrea Burcer,  
Marinelle A. Decena, Viella Marie Tunay, Diego Miguel Sapnu, and Garry Oca  
*University of the Philippines Los Baños*

The WILUP is an approach that uses the watershed as the physical planning unit in land use planning. It is consistent with prescription of the HLURB Guidebook to use the ridge to reef (R2R) approach in the preparation of comprehensive land use plan (CLUP) to promote horizontal integration of land use and development plans amongst LGUs (towns, cities and provinces) and amongst NGAs and vertical integration of plans of LGUs and NGAs. This presentation will highlight the potential benefits of using WILUP for the preparation of provincial development and physical development plan (PDPFP) that will serve as the common and integrative physical framework for the use of land and key sectoral planning at the provincial and municipal/city level. Further, the usefulness of the WILUP framework for creating sufficient space and opportunities for the inclusive participation of various sectors especially the indigenous communities, smallholder farmers and other marginalized groups in land use and development planning and implementation will also be discussed in this presentation. The physical, informational, cognitive, technological, economic, political and institutional constraints and challenges along with doable solutions to facilitate the robust implementation of WILUP approach for the preparation of PDPFPs will be covered in this presentation. Experiences in the use of WILUP in updating the PDPFP of the province of La Union with support from PCAARRD-DOST and Asia-Pacific Network for Global Change Research will be used as illustrative examples.

**SESSION B2**  
**Investing for the Future: Human Capital and  
Robust Businesses in the Philippines**

Improvements in human capital and upgrading the robustness of the private sector will ensure a more resilient Philippines. This session examines aspects of human development—focusing on early intervention and education—on developmental issues such as cognitive and non-cognitive outcomes as well as longer-run returns in the labor market. The session also highlights how businesses become resilient in the face of a major shock. Paper 1 examines returns to education in the Philippines from 2005 to 2022, focusing on salaried college graduates. Paper 2 analyzes whether exporters’ capabilities, emergency innovations,



and business adjustments during the pandemic improved their survival, robustness, and resilience amidst COVID-19 shocks. Paper 3 examines the effect of non-maternal child care on the physical and cognitive development of children aged 10-12 years old, through measures of body mass index and test scores in nonverbal reasoning, mathematical ability, English reading ability, and native language reading ability.

### **Returns to Education in the Philippines (2005–2022): Declining Benefits, Increased Inequities**

Jose Ramon G. Albert, Jan Carlo B. Punongbayan, and Mika S. Muñoz  
*University of the Philippines School of Economics*

We examine the returns to education in the Philippines from 2005 to 2022, focusing on salaried college graduates. Data show that returns have declined but have become more similar across various levels of educational attainment. The most significant decrease has been observed in the returns on college education, which has disproportionately affected low-wage workers, contradicting previous research. This trend may be attributed to the growth of formal employment, a transition from agriculture to services, changes in job quality, and a decline in education quality. We also highlight concerns about the quality of education, including the alignment of educational programs with industry needs, as well as challenges such as insufficient resources and a shortage of qualified teachers. Finally, the study emphasizes the importance of targeted interventions to address the factors contributing to the declining returns to education in the Philippines. Policymakers must prioritize education quality, relevance, and accessibility while creating high-skill jobs aligned with the growing educated workforce.

### **Emergency Innovations, Business Adjustments, and Exporters' Robustness and Resilience Amidst COVID-19 Shocks: A Cross-Country Firm-Level Analysis**

Adrian R. Mendoza  
*University of the Philippines School of Economics*

A large firm-level dataset that covers 23 countries was assembled using the World Bank Enterprise Surveys and COVID-19 Surveys to analyze whether exporters' capabilities, emergency innovations, and business adjustments during the pandemic improved their survival, robustness, and resilience amidst COVID-19 shocks. The empirical strategy employed Weibull and negative binomial regressions to model firm behavior during the disruptive lockdowns. The stylized facts suggest that exporters, especially those connected to global value chains, had a higher survival probability than non-exporters despite the former's larger exposure to global shocks. The Weibull survival regressions confirm that stringent COVID-19 containment measures accelerated the failure time of exporters, while superior capabilities reduced the risk of exit during the first year of the pandemic. However, the effect

of pre-pandemic innovations was mixed across models. In terms of emergency responses to disruptions, “positive” technology-intensive innovations were found to be positively related to exporting, while “negative” business adjustments were negatively related to exporting. However, the Weibull and negative binomial regressions suggest that these emergency pandemic responses were either insignificant or negatively related to exporters’ survival, robustness, and resilience, even in the presence of government support. This implies that the documented emergency innovations and business adjustments were likely signs of distress and mainly used as last-ditch efforts to stay in business. Consistent with the Schumpeterian cleansing effect, the results suggest that the best way to prepare for a massive shock such as COVID-19 was by building capabilities and contingency plans many years before the pandemic.

### **How Does Non-maternal Care Affect Children’s Physical And Cognitive Development?**

Jana Isabella S. Cruz and Fiona Leigh Uy  
*University of the Philippines School of Economics*

In the Philippines, non-maternal care has become a prevalent child care option for mothers, mainly for the purposes of pursuing employment after childbirth or simply for receiving additional support in caregiving. Given this, there is a need to explore whether this type of care poses any specific positive or negative effects on child outcomes. This study uses data from the Cebu Longitudinal Health and Nutrition Survey (CLHNS) to examine the effect of non-maternal child care on the physical and cognitive development of children ( $n=1,638$ ) aged 10-12 years old, through measures of body mass index and test scores in nonverbal reasoning, mathematical ability, English reading ability, and native language (Cebuano) reading ability. We investigate the effects of non-maternal care on child outcomes using various propensity score matching (PSM) algorithms. Results showed that non-maternal care has detrimental effects on children’s native language test scores. These findings are consistent across all four matching types. It was revealed that non-maternal care has a negative impact on mathematics test scores, however, these findings are robust to the nearest  $n$ -neighbor and radius with caliper matching methods alone. We find no significant link between non-maternal care and children’s body mass index and test scores in English and nonverbal reasoning. This study addresses the lack of non-maternal care research in the Philippines as well as the lack of studies on non-maternal care that study children later into their childhood.

### **Growth, Poverty, and Food Policy in the Philippines: Lessons for the Post-COVID-19 Era**

Majah-Leah V. Ravago<sup>1</sup>, Arsenio M. Balisacan<sup>2</sup>, Enrico G. Trinidad<sup>2</sup>

<sup>1</sup>*Development Academy of the Philippines/Ateneo de Manila University*

<sup>2</sup>*National Economic and Development Authority*

The Philippine economy's growth has accelerated since 2010, outperforming its Asian peers in the current decade. However, poverty reduction is comparatively weak in response to growth, suggesting that growth has been less inclusive than expected. Poverty in the Philippines is still largely a rural phenomenon despite the country's rapid urbanization. Our primary objective is to reexamine how much the national food policy has influenced the poverty-reducing effects of economic growth using the more recent national household-level data from 2000 to 2021. The longer data, including a period of mobility relaxation following long lockdowns upon the onset of the COVID-19 pandemic, allow us to revisit the growth-poverty conundrum in the Philippines. We focus on the more recent decade of relatively sustained growth compared to earlier studies on the subject. We use Engel food shares as a proxy for household welfare and consider the differential welfare effects of food price changes across segments of the population. We show that economic growth in recent years would have been strongly pro-poor if not for the misguided set of policy tools chosen to achieve the food self-sufficiency goal. The government's move to dismantle the quantitative restriction regime on rice imports in favor of tariffs is a step in the right direction.

## SESSION B3

### New Perspectives on Inflation Dynamics and Expectations

The formation of inflation expectations is an important topic for central banks like the BSP since it represents a major channel of how monetary policy is transmitted. A significant amount of research has been undertaken over the past two decades on how inflation expectations are formed and how it influences actual inflation dynamics (Reis, 2023). This session will explore the crucial role of inflation expectations in shaping inflation dynamics, with a focus on how both households and professional analysts form these expectations. Drawing on recent empirical and theoretical research, the session will examine the mechanisms through which households and analysts set their inflation expectations drawing on unique datasets available to the BSP. Additionally, the session will delve into the consequences of these expectations for actual inflation outcomes, investigating the feedback loops between expected and realized inflation through estimates of trend inflation.

#### Measuring Uncertainty in Inflation Expectations

Vanessa España, Ma. Aizl Camille Santillan, and Nerissa De Guzman  
*Bangko Sentral ng Pilipinas*

This study exploits a unique dataset in the Bangko Sentral ng Pilipinas' survey of professional forecasters, which contains (i) the respondents' subjective probability distribution, to derive direct measures of uncertainty, as well as (ii) their perception of risks to the forecasts, to identify the factors driving their uncertainty. Following Zarnowitz and Lambros (1987), the central tendencies of density forecasts are found to be highly correlated with the median

of inflation forecasts. Applying text mining analysis, supply-side factors are found to be the most frequently used words in respondents' perception of risks to their inflation outlook. Estimation results show that measures of uncertainty rise alongside actual inflation outturns and the occurrence of El Niño Southern Oscillation or ENSO weather events.

### **Inflation Expectations of Filipino Households: Adaptive, Rational, or Sticky? Evidence from an Emerging Market Economy**

Eddie Boy L. Fuentes, Mary Krysllette C. Bunyi, Christine S. Albao,  
and Cherrie R. Mapa  
*Bangko Sentral ng Pilipinas*

Understanding the formation of inflation expectations is crucial for monetary policymaking, given that these expectations shape inflation dynamics. Using Consumer Expectations Survey data, we test whether Filipino households' inflation expectations can be characterized as adaptive, rational, or sticky. Empirical evidence indicates that households are partly adaptive: they primarily consider recent price changes in food, beverages, and tobacco but account for more than just past inflation to form expectations. Neither are households fully rational: their inflation forecasts, while unbiased, exhibit autocorrelated errors and insufficiently incorporate recent macroeconomic data. Instead, consumer expectations data align with the sticky information model, which posits that agents are generally inattentive and infrequently update their forecasts. Results suggest that half of the households retain lagged, previous-quarter expectations; a third follow "rational" professional forecasts, and a fifth update adaptively based on the latest inflation data. We also estimate a state-dependent model, where agents update forecasts more frequently during inflationary periods.

### **Estimating Trend Inflation in the Philippines Using Inflation Expectations Survey**

Jasmin E. Dacio, Sarah Jane A. Castañares, Reizle Jade C. Platitas,  
Joan Christine S. Allon-Pineda, and Marcus Jude P. San Pedro  
*Bangko Sentral ng Pilipinas*

Trend inflation represents a measure of the long-run behavior of inflation, providing information on whether price pressures are driven by transitory or persistent factors. Further, incorporating market-based inflation expectations in the estimation of trend inflation offers insights into the degree of anchoring of inflation expectations to the target and its behavior over time. This study presents a forward-looking measure of trend inflation in the Philippines using an unobserved components model with stochastic volatility and utilizes the results of the BSP's private sector inflation expectations survey from January 2012 to December 2023. The study finds that the trend inflation estimates are generally stable and within the inflation target band, suggesting generally anchored inflation expectations over the sample period. Amid a broadly steady trend inflation estimate, actual inflation is seen to be largely driven by

transitory components. Meanwhile, the uptick in trend inflation estimates in 2018 and 2022 is consistent with the surges in actual inflation observed during the said years. Likewise, the lower inflation in 2015 is captured by the decline in trend inflation during the same period.

### **Measurement and Analysis of the Dynamics of Trend Inflation in the Philippines**

Ruby Anne E. Lemence  
*Bangko Sentral ng Pilipinas*

Aggregate trend inflation in the Philippines is measured and analyzed by estimating an unobserved components model using aggregate and disaggregated consumer price index (CPI) inflation data for the period 1995-2023. Estimates from the univariate and multivariate versions of the model indicated that trend inflation has declined on average and has become less volatile since the early 2000s coinciding with the adoption of an inflation targeting framework for monetary policy since 2002. Periods showing significantly large fluctuations in observed inflation generally coincided with episodes of increased volatility of shocks to both the trend and transitory components of inflation. Decomposition of the estimated trend and the volatility of its shocks using the multivariate trend inflation model revealed larger fluctuations in and more volatile shocks to sector-specific trend inflation components. These suggest that movements in aggregate trend inflation were driven more by sector-specific factors rather than the generalized price increases associated with aggregate demand. While the use of disaggregated CPI inflation data did not necessarily result in more precise trend inflation estimates over those based on aggregate inflation measures, the width of the posterior intervals from the multivariate trend inflation was observed to still be relatively narrow at around half a percentage point. Trend inflation estimates based on disaggregated CPI inflation data outperformed the forecasts based on aggregate inflation measures in short-term inflation forecasting, but not beyond four quarters ahead. Overall, the results of the study highlight the benefits of employing a multivariate trend model approach on disaggregated CPI inflation data as an additional tool for analyzing the movements in aggregate inflation.

## **SESSION B4 Economic Studies in Mindanao**

### **Determinants of Crime Rate: The Case from Regions of Mindanao, Philippines**

Kathylene Mae C. Cañada, Clarissa Q. Concon,  
Lowella Joy T. Magsayo, and Rhealyn S. Paculob  
*Mindanao State University-Iligan Institute of Technology*

This study examines the factors affecting crime rates across various regions in Mindanao, Philippines, from 2009 to 2022, addressing the island's lag behind Visayas and Luzon in economic growth. By analyzing GRDP per capita, mean years of education, unemployment

rate, urban population, police operating expenses, and police per capita, the research uses panel regression analysis to determine significant crime predictors. Results show that mean years of education have a significant positive relationship with crime rates, while police per capita has a significant negative relationship, suggesting that higher education levels may be linked to increased crime, but a larger police force can reduce it. Other variables, such as GRDP per capita, unemployment rate, urban population, and police operating expenses, were insignificant. These findings highlight the complexity of crime factors and the need for strategic police allocation and education reforms, offering insights for policymakers on crime reduction in Mindanao.

**Preliminary Assessment for Enhancing Energy Access and  
Social Inclusion through Community-Based Deployment of Off-Grid  
Renewable Energy Systems in the Davao Region**

Anthony C. Sales, Mirasol G. Domingo, Gretchen P. Cuevas,  
Larry Jay G. Samontina, and Jerick Jay B. Capote  
*Department of Science and Technology-Region XI*

Energy poverty remains a critical global issue, particularly in rural and isolated areas. It significantly impacts well-being and perpetuates poverty cycles, making it difficult for these communities to thrive sustainably. The Davao Region in the Philippines exemplifies this challenge, with many geographically isolated and disadvantaged areas struggling due to inadequate energy infrastructure. This preliminary study examines the potential of off-grid community-based solutions such as microgrid renewable energy systems with agri-agro microenterprises through site visits, stakeholder interviews, and participatory community engagements. Initial assessments suggest that these technologies provide reliable electricity and stimulate local economic activities in targeted project sites. Supporting community energy schemes is also expected to promote social inclusion, raise awareness of sustainable energy, encourage eco-friendly farming practices, and empower communities to take collective action. As the Philippines advances toward a global energy transition, resilient and sustainable energy initiatives are urgently needed to support socioeconomic growth while mitigating environmental impacts.

**Enhancing Agricultural and Fisheries (AF) Productivity:  
A Capacity Assessment of Davao Occidental LGUs, Philippines**

Grace D. Buencillo, Elenito P. Bugawisan, Marlyn B. Llamag,  
Kher Dave H. Doños, Junarie Joy Tuba-Dano, John Paul R. Pacyao,  
Eldum Limao, Ritchel Joy C. Bitgue, Imelda A. Mariano,  
Michael Jeriel I. Bersaldo, Ariel E. San Jose, Debie Carino,  
Franz Jeemson Tan, and Jerome Jorolan  
*Southern Philippines Agribusiness and Marine and Aquatic School of Technology*

Devolution of agricultural extension to LGUs faces challenges, especially to low- and mid-income municipalities. This study sought to assess the capacity of the P/LGUs in enhancing AF productivity in Davao Occidental, Philippines. A quantitative design was utilized, with agricultural extension workers (AEWs), Provincial/Municipal Agriculture Offices (P/MAOs), farmers, and fisherfolks serving as respondents. Results showed that a shortage of AEWs, particularly in livestock and fisheries, coupled with inadequate budget allocation, hinders service delivery. While AEWs are competent, capacity-building needs remain. Farmers and fisherfolks were moderately aware and showed moderate satisfaction with extension services due to factors such as logistics and inadequate funding. To improve the situation, LGUs must invest in AEW capacity building, balance resource allocation, prioritize RandD, and enhance infrastructure and support systems to enhance the delivery of services for the welfare and well-being of farmers and fisherfolks.

### **Housing Affordability in Barangay Bucana, Davao City using the House Price to Income Ratio**

Benjie A. Roces and Christine R. Varquez-Abines  
*University of Southeastern Philippines*

Barangay Bucana is known for its status as the most populous barangay in Davao City. It faces significant numbers of uncontrolled squatting and housing challenges. Despite government housing services, the growing prevalence of informal, overcrowded, and substandard housing underscores the evident housing crisis in the barangay. Thus, this study assessed the housing affordability of the barangay using the House Price to Income Ratio (HPIR). A survey of 100 household head respondents, reveals a diverse population in terms of sex, age, marital status, employment status, educational attainment, years of residency, monthly non-housing expenses, tenure status, and household size. The result found that the majority of the income classes cannot afford government housing. Educational attainment, employment status, tenure status, house types and prices significantly influence housing affordability.

## **SESSION B5 National and Regional Economic Growth**

### **National Budget Allocations and Regional Growth Dynamics in the Philippines**

Coleen Abigail V. Villaluz  
*Congressional Policy and Budget Research Department,  
House of Representatives*

Government budget allocations and their effective implementation play an important role in shaping the trajectory of regional economic growth. This study examines the impact of national government expenditure on economic growth in the Philippines, analyzing data

from 17 regions between 2013 and 2023. Using pooled OLS, random effects, and fixed effects models, the results reveal a positive and statistically significant impact of national government spending on regional GDP growth. An increase in government spending has a positive impact on economic growth in regions. Moreover, higher enrollment rates and increased domestic investment are found to further stimulate regional growth. Reduced unemployment and inflation also contribute significantly to regional economic performance. These findings highlight the importance of strategic budget allocation in promoting regional economic development and overall economic well-being. Policy recommendations include prioritizing certain regions or sectors, improving resource allocation efficiency, and ensuring alignment with national development goals.

### **Effects of Informal Retail Sector in Economic Growth: A Macroeconomic Computable General Equilibrium Model for the Philippines**

Cherrylyn P. Labayo and Philip Arnold P. Tuaño  
*Ateneo de Manila University*

The informal retail trade industry is a key driver of the Philippine economy. This study aims to quantify the sector's contribution to the national economy using a Computable General Equilibrium (CGE) model. By simulating the interdependencies between the retail trade sector and other industries, the model provides a comprehensive assessment of its direct and indirect impacts on key economic indicators, including GDP and employment. In addition to quantifying the sector's contribution, the study explores potential interventions to maximize the opportunities within the informal retail trade industry, such as creating a supportive financial environment. The CGE model will also be used to simulate the effects of these proposed interventions, providing insights into their potential to boost the sector's productivity and growth. The findings from this study will be crucial for policymakers and stakeholders, offering evidence-based recommendations to strengthen the retail trade sector's role in promoting inclusive economic growth in the Philippines.

### **Investing in Public Infrastructure in the Philippines: A Simulation Study Using a CGE Model**

Emmanuel M. Preña and Philip Arnold P. Tuaño  
*Ateneo de Manila University*

National infrastructure development in the Philippines, particularly since the Build, Build, Build program initiated by the previous administration, has opened significant avenues for growth and transformation. Infrastructure investment has become a key driver of the country's social and economic progress. This paper underscores the importance of utilizing an economy-wide model to analyze the effects of public infrastructure investment in an emerging economy. Specifically, it examines the economic impact of the PhP 9.5 trillion (USD



168 billion) allocated for new infrastructure projects under President Ferdinand R. Marcos Jr.'s Build Better More program. By employing a computable general equilibrium (CGE) model, this study highlights how increased public investment in economic infrastructure can effectively stimulate the economy, yielding positive outcomes for employment and overall economic growth.

### **Public Sector Innovation in the National Capital Region: Interrelationships of Competitiveness Pillars in the Cities and Municipalities Competitiveness Index**

Chris Allen V. Matute  
*Polytechnic University of the Philippines*

This study explores the competitiveness of the National Capital Region's (NCR) cities by analyzing the Cities and Municipalities Competitive Index (CMCI). The study explores how the lens of new public management (NPM) reform policies, particularly the concept of "re-engineering government", aims to refurbish local government units' management systems and operations. In particular, this study attempts to capture the significant relationship between government efficiency and economic dynamism and how it affects the relationship through infrastructure and resiliency using the CMCI scores. Using the secondary data collected, the study tested the relationships by employing the structural equation model (SEM) in AMOS. The study also employs one-on-one interviews with the informants of the selected NCR cities and analyzes them using the explanatory sequential mixed method. Results suggest that government efficiency are vital predictor of infrastructure and resiliency and that infrastructure has a significant relationship with economic dynamism. However, economic dynamism is not a predictor of government efficiency, and resiliency has an insignificant relationship with economic dynamism in the model. Finally, this study aims to contribute to the development of strategies to enhance the competitiveness of cities and municipalities.

## **SESSION B6** **Public Finance, Monetary and Financial Economics I**

### **Nexus between Financial Inclusion and Economic Activity: A Study about Traditional and Non-traditional Financial Service Indicators Determining Financial Outreach**

Florian Gerth  
*Asian Institute of Management*

This paper empirically analyzes the link between financial inclusion (SDG 8.10) and economic activity. Instead of following the past literature and approximating financial inclusion by variables only capturing traditional financial services, it takes into account non-traditional financial services including mobile money and non-branch retail agent outlets. With the help

of the Normalized Inverse of the Euclidian Distance and a one-way fixed effects panel model, this paper documents empirically robust results about the positive link between financial inclusion and the level of economic activity. In addition, a break between poverty and financial inclusion is established by regressing the calculated index of financial inclusion on demographic, socio-economic, and variables concerning the health and depth of the financial sector. The implications of this finding are two folds. First, it highlights the improvements in low, lower-middle, and upper-middle-income countries in terms of outreach to financial services in the last decade. Second, it shows that the level of education and the soundness and depth of the local financial sector are important in reaching higher levels of financial inclusion. Overall, our results emphasize the importance of targeted policies to increase the accessibility, availability, and usage of the financial sector in attaining sustainable and long-lasting economic prosperity.

### **How Does Financial Literacy Affect Financial Behavior Over the Life Cycle? Evidence From Filipino Households**

Faith Christian Q. Cacio and Marie Edelweiss G. Romarate  
*Bangko Sentral ng Pilipinas*

We examine the effect of financial literacy on the financial decisions and behaviors of individuals who are at different life stages using data from the 2018 Bangko Sentral ng Pilipinas Consumer Finance Survey. We constructed a financial literacy index, and then used regression techniques to determine the factors that affect financial literacy and assess its impact on financial behavior. We find that young adults display higher financial literacy than other age groups. Income, education, having children, and receiving remittances are positively related to financial literacy. Those with higher financial literacy, middle-aged and seniors are less likely to spend within their income. Middle-aged persons are less likely to have a loan-to-income ratio of less than one. Those with higher financial attitude scores are more likely to pay their loans on time. Individuals with higher financial aptitude, who are middle-aged or seniors tend to have retirement/pension plans, and insurance and other plans.

### **How Do Households' View of Inflation Expectations Affect Their Consumption Decisions?**

Faith Christian Q. Cacio and Cymon Kayle Lubangco  
*Bangko Sentral ng Pilipinas*

This study examines the potential effects of perceptions and cognitive biases on the link between household inflation expectations and consumption and spending decisions. Using the quarterly BSP Consumer Expectations Survey (CES) over the period 2010 - 2024, this research looks at how households' assessment of future inflation affects their decision to spend on durable and non-durable goods. The study makes a distinction between households'

qualitative perception (i.e., future inflation will either increase, decrease, or remain the same) and quantitative assessment (i.e., expected percentage point increase or decrease in inflation) of future inflation. Preliminary results show that Filipino households often perceive that prices will increase, which in turn, affects their planned consumption. These findings have significant implications for the effectiveness of monetary policy in influencing household consumption through the inflation expectations channel.

### **The Potential Impact of a Tax on Instant Coffee on Consumption and Revenues in the Philippines**

Prince Louie B. Mamhot

*Congressional Policy and Budget Research Department,  
House of Representatives*

This study examines the potential consumption and revenue effects of extending the excise tax on sweetened beverages to include instant coffee in the Philippines. Despite its exemption under the TRAIN Law, instant coffee is a significant contributor to the sugar intake of Filipinos, posing risks such as cardiovascular diseases and diabetes. Using data from the Family Income and Expenditure Survey (FIES) and the Retail Price Survey, the study employs Cragg's two-part model to assess the demand for instant coffee. Results reveal that demand for instant coffee is inelastic, indicating that a tax-induced price increase would lead to only a modest reduction in consumption, particularly among younger and urban populations. Moreover, the tax is projected to generate substantial government revenue, which could be allocated to public health initiatives aimed at mitigating the adverse effects of high sugar consumption. In addition, levying a tax on instant coffee based on its sugar content is expected to spur innovation for sugar alternatives. The study highlights the potential of such a tax to support public health objectives while enhancing fiscal resources in the Philippines.

### **SESSION B7 Nonstandard Activities in an Economics Classroom: Setups, Struggles, and Successes**

In this session, we present three not-very-usual activities meant to give students access to more realistic experiences while being in a classroom setting. The first paper describes how "soft skills" in dealing with other cultures could mesh well with economics education. The second paper sets up forecasting competitions involving suitably scaled tools used in central bank decision-making. The third paper shows how to onboard first-year economics students to use symbolic computation tools in Python. All these activities ultimately build new skills that are likely complementary to each other and to other future skills to be learned as students embark on careers of their choosing. Each paper will describe the setups, the struggles, and the successes of their activities.

## **Bridging Cultures and Economies: Assessing the Potential of a Collaborative Online International Learning (COIL) on Economics Education in a Hybrid Context**

Jason Alinsunurin  
*De La Salle University Manila*

The paper contributes to the literature on how Collaborative Online International Learning (COIL) can effectively work for economics and global citizenship education. In February 2022, DLSU and Phnom Penh International University (PPIU) designed an undergraduate COIL program to incorporate cross-cultural learning experiences and allow students to understand regional economic development issues. In this case, a hybrid learning model has been adopted with three primary objectives: (1) the facilitation of cross-cultural interaction, (2) the creation of an international academic network, and (3) the promotion of economics education via an online cultural exchange. The methodology adopted by the research is mixed methods in nature, with quantitative assessments of baseline cultural competencies (BCCs) and in-depth qualitative feedback from participants. Two findings are notable. First, COIL participants showed improvements in levels of intercultural competencies, interest, and engagement in social and development issues relevant in both countries; however, improvements were not always observed on both sides. Second, COIL participants have identified language barriers, technical difficulties, and differences in academic calendars as some of the major challenges in making COIL productive. Some of the more pragmatic recommendations for the design of COIL programs include increasing activity duration, employing case method approaches, and providing extra support for students with different English proficiency levels. The research also shows the potential of COIL to improve access and democratize cross-cultural collaboration, particularly among learners in the Global South.

## **Can a Small-scale NK DSGE Model Still Compete Against Forecasting Workhorses?: Some Observations from a Believer**

Lawrence B. Dacuycuy  
*De La Salle University Manila*

This paper builds an environment for forecast competition in which model participants include the three-equation New Keynesian DSGE model, the Bayesian vector autoregression (BVAR), the vector autoregression (VAR), the structural vector autoregression (SVAR), the vector error correction (VECM) models, and univariate ARMA processes. Originally designed as a pedagogical tool, the paper's methodology focuses on output growth, inflation, and policy rate using data from the growth period from 2002 to 2018. We use the root mean square error (RMSE) as the basis for evaluating forecasts. Initial examination reveals that output growth and inflation rates are not as easy to forecast relative to the policy rate, which traditionally exhibits limited variability. Based on the results, the DSGE model has a fair chance of emerging as the winner in the forecast competition as long as more persistent stochastic demand and supply shocks are appropriately integrated.

## Early Exposure of Economics Students to Symbolic Computation in Python

Andrew Adrian Pua  
*De La Salle University Manila*

A subset of first-year undergraduate economics students were exposed to a symbolic computation tool in Python called SymPy. These students are nearing the end of their first year and are taking a mathematics course specifically covering static optimization. Having SymPy available could potentially give students a chance to double-check their answers to optimization exercises and at the same time be more comfortable with a bit of programming. I share some of my experiences with teaching students SymPy and the resulting challenges in a weekly one-hour lab session with about 20 students. To onboard students rapidly, I used the SymPy Live Shell and Google Colab so that students would not worry about installation. I also show how in just one lab session, any student should be able to use symbolic computation to almost completely characterize the behavior of a function of one variable for optimization.

## SESSION C1

### The Philippine Economics Education Roadmap: A Consultation

A proposal for the development of the Philippine Economics Education Roadmap will be presented in this session. The current state of economics education in the Philippines faces several significant challenges. There is a lack of standardization across institutions, leading to inconsistencies in the quality and content of the programs offered. Many economics courses are heavily influenced by Western models that do not reflect the region's dynamic economic landscape. The development of a roadmap for economics education in the Philippines is essential in light of several local and global pressing issues such as

- New Global Challenges
- Changing Economic Landscape
- Regional Diversity and Specific Challenges
- Alignment with National and Global Priorities
- Need for Comprehensive Policy Directions

The roadmap for economics education in the Philippines is crucial to adapting to new global challenges, embracing technological advancements, addressing regional diversity, and aligning with broader developmental goals. By undertaking this initiative, we can create a resilient, forward-looking educational system capable of producing graduates who are well-equipped to drive the country's economic progress and sustainable development.

This session will discuss critical and potential policy directions consistent with local, regional, and international needs and industry trends. A panel of reactors will weigh in and share their insights on the proposed roadmap. The open forum will serve as an initial stakeholder consultation.

## SESSION C2

### Industry Studies: Public and Transportation Utilities

#### **Assessing Port Efficiency of the Philippine Domestic Ports: An Application of Data Envelopment Analysis**

Mary Grace R. Agner, Jacqueline Mirabueno, and Tanya Nicole Reyes,  
*University of Asia and the Pacific*

This paper examines the relative efficiency of the domestic ports in relation to domestic container shipping during the pre-pandemic (i.e., 2018 to 2019), pandemic (i.e., 2020 to 2021), and pandemic recovery (i.e., 2022 to 2023) periods. The waiting time and service time for domestic trade are utilized as input variables, while domestic container throughput (TEU) is used as the output variable in the Data Envelopment Analysis. Based on the findings, the overall mean efficiency scores approximately range from 0.20 to 0.25. The highest efficiency scores among all covered periods were in the years before the pandemic. The NCR North Port is determined as the most efficient port across periods. This is followed by Davao Port. The results reveal that there is a significant potential increase in output for container throughput ranging from 75% to 80% for the domestic ports covered in the study.

#### **Simulating the Impact of NPC's Proposed New SAGR on MIMAROPA's Regional Economy and Poverty Levels using CGE\***

Rolly Czar Joseph T. Castillo, Melba V. Tutor, James Matthew B. Miraflor,  
Wilson M. Fortaleza, and Maria Teresa I. Diokno  
*Center for Power Issues and Initiatives*

We demonstrate the adverse effect of increasing the Subsidized Approved Generation Rate (SAGR) on consumers' income and capacity to pay in the MIMAROPA Region. We employ a computable general equilibrium (CGE) model to simulate the economy-wide impacts of an electricity price shock in a local economy. The results point to second-order price increases, depression of output, and net job loss in almost all economic sectors, with agriculture losing P1.93 billion in output and 13 thousand employed. The initial electricity price shock and second-order price shocks, as well as increases in unemployment, resulted in a severe decline in household income felt across all the income deciles. This led to a 1.5 percentage point increase in the poverty rate and a 0.4 percentage point increase in the food poverty rate. This translates to 10,686 families falling below the poverty line and an additional 3,151 families unable to meet food requirements.

*\*The paper is commissioned by the Association of Isolated Electric Cooperatives, Inc. (AIEC)]*

## **Energy Portfolios of Philippine Households: The Role of Electricity Prices and Socioeconomic Status**

Zylver Wayne L. Bautista and Aldrin Joseph A. Garvida  
*Ateneo de Manila University*

This study adds to the current literature on energy by attempting to determine the influence of electricity price rates and socioeconomic status on the energy portfolios of Philippine households using ordinary least squares and logistic regression. We found that, with increasing electricity prices, fuel stacking behavior becomes more pronounced. We also found that price volatility has a contrasting effect on fuel consumption with varying electricity prices. Specifically, with increasing price volatility, households in highly electricity-priced areas are more likely to adopt fuel stacking while households in areas with low electricity prices become more inclined to use solely modern fuel sources. Lastly, we demonstrate that numerous socioeconomic and demographic factors are significant determinants of fuel choice at the household level with traditional and mixed fuel consumption being associated with lower-income and rural households.

## **SESSION C3 Economics of Natural Disasters and Sustainable Development**

### **An Analysis on the Influence of Eco-innovation on Climate Change Risk in Asia and Europe (2012-2018)**

Michaela Abing, Beverlyn Alucilja, Kylla Rejiel Bag-ao, Nurnaharah Pundogar,  
Abdul Wahid Talib, Martha Joy Abing, Charlyn Capulong,  
Resa Mae Laygan, and Maria Rizalia Teves  
*Mindanao State University-Iligan Institute of Technology*

This paper aimed to analyze the influence of Eco-innovation on Climate Change Risk using data from the countries of the Asia-Europe Meeting (ASEM). Climate change risk is measured in terms of Climate Risk Index (CRI), with lower scores indicating higher exposure, and higher scores indicating better resilience against climate change risks. Using robust random effect regression in panel data analysis, findings reveal that Eco-innovation positively and significantly influences CRI score at 1% and 10% significance level, which could help lower the risk of climate change. While Control of Corruption and Urbanization are negatively significant on the CRI score at 1% and 10% level of significance. Increased Control of Corruption attracts firms to operate unsustainably, while Urbanization drives uncontrolled resource consumption, leading to environmental decline. Eco-innovation plays an important role in reducing climate change risk by incentivizing sustainable efforts and promoting eco-innovation initiatives, thereby reducing the region's vulnerability to climate change.

## **When It Rains, It Falls: Precipitation, Firm Relocation, And Productivity**

Irene Jo E. Arzadon<sup>1,2</sup>, Gonzalo Varela<sup>2</sup> and Jaime Frias<sup>2</sup>

<sup>1</sup>*University of the Philippines School of Economics*, <sup>2</sup>*World Bank*

As climate change risks increase, a growing body of literature examines its effects on economic activity. However, research on climate variations and firms' decisions and performance is still emerging. The Philippines, one of the top five countries most at risk of climate change, has seen a notable rise in precipitation, heightening flood risks and disrupting economic activities. This study explores whether precipitation patterns affect firms' performance and decisions regarding employment, investment, and location. By merging firm-level data from the 2012 and 2018 Census of Philippine Business and Industry (CPBI) with barangay-level satellite weather data, we find that higher precipitation increases the likelihood of firms relocating to areas with lower precipitation intensity, after controlling for firm and industry characteristics. Additionally, results indicate a negative correlation between higher precipitation and firm productivity. These findings are crucial for designing effective climate change adaptation policies.

## **The Effect of Carbon Emissions on Free Cash Flow and Tobin's Q of Publicly Listed Firms in the ASEAN-5**

Norvin Nimiel G. Dela Cruz, Jose Gabriel B. Lontoc,  
Karuna May T. Mansukhani, Juan Carlos G. Rodriguez,  
Tereso S. Tullao Jr., and Krista Danielle S. Yu

*De La Salle University Manila*

The private sector plays a large role in achieving the Paris Agreement commitments through sustainable finance. This paper aims to determine the relationship between carbon emissions and firm performance measured by Tobin's Q and Free Cash Flow (FCF) in the ASEAN-5 region through panel Generalized Least Squares (GLS) random and fixed effects models. Data was retrieved from the Eikon Refinitiv from 2019 to 2022 and divided carbon emissions and other variables by total revenue, to account for heterogeneity in firm size. Results show that total carbon intensity does not significantly affect Tobin's Q, showing that a firm's market value is unaffected by decarbonization. However, total and direct carbon emissions reduce the FCF of firms, incentivizing firms to implement carbon reduction strategies. In line with this, governments in the ASEAN-5 region may consider imposing stricter carbon regulations on corporations in their respective countries. In addition, firms should also explore green investments.



## **Assessment of Social and Economic Performance of Selected Barangays Traversing Pagbanganan River in Baybay, Leyte, Philippines**

Charissa M. Ferrera, Vanessa Vargas-Nguyen, Mary Cris F. Pleños,  
Neca Jane O. Malacora, Clef Lennard M. Piedraverde, and Marielle G. Diaz  
*Visayas State University*

The socio-economic dimensions of local communities are crucial for achieving national goals of economic resilience and sustainable development. This study assesses the social and economic performance of barangays along the Pagbanganan River in Leyte by examining data from upstream, midstream, downstream, and coastal areas. Descriptive analysis reveals that the average age of the respondents is around 48 years, indicating a mature population, with the coastal areas being particularly settled. There is a significant economic disparity among the areas, with most income derived from primary sources and spending predominantly on food. Most residents own their homes, and there is a high coverage of electricity and piped water. Additionally, while sanitation practices are generally good, some waste is still disposed of directly into the river, leading to water-related diseases. This suggests a need for tailored policies to address economic disparities and enhance sanitation, contributing to more equitable and sustainable community development along the Pagbanganan River.

### **SESSION C4**

## **Consequences of Incorporating Equity, Inclusion, and Technological Developments on Socioeconomic Life**

This is a session with papers from economics graduate students at De La Salle University - Manila. The topics cover labor economics, corporate finance, the economics of education, and energy economics. But all the presentations are unified by a common goal: to understand the consequences of incorporating equity, inclusion, and technology in our socioeconomic lives. The first paper determines the consequences of the Salary Standardization Law on private-public wage differentials. The second paper determines the effect of having non-family affiliated female directors on family firm performance. The third paper traces the intergenerational effects of parents' mobile phone ownership on children's educational outcomes. Finally, the fourth paper makes a case for proper accounting of emissions to effectively study the impact of the transition to cleaner energy sources.

## **Philippine Government versus Private Sector Wages: Its Decomposition across the Distribution and the Salary Standardization Law**

Maria Francesca Tomaliwan  
*De La Salle University Manila*

Adjustments in the wages of Philippine government workers are determined by legislation called the Salary Standardization Law (SSL). While empirical work suggests the existence of a

public pay premium, the law's wage mechanism intends to offer equal pay for equal work with consideration of the private sector's current rates. By employing the RIF regression by Firpo, Fortin, and Lemieux (2009) and its decomposition, the paper aims to analyze the effect of the Salary Standardization Law on private-public sector wage differentials for the years 2013-2019. Compared to the period when no legislation is enforced, the SSL implementation results in a lesser public wage premium, but only from the lowest to the middle of the distribution. This is attributed to the law's "ripple effect" on the private sector's lowest-earning workers. As such, it is recommended for any government salary increase to be not on an exponential trend. Lastly, upon assessing sectoral salary differentials across occupations, civil servants with managerial positions are found to enjoy sizable premiums.

### **The Impact of Female Board Participation on Family Firm Performance: Does Family Affiliation Matter?**

Andrae Jamal I. Tecson  
*De La Salle University Manila*

Significant progress in including women on corporate boards has characterized the past decade of corporate governance, yet disparities in female board representation remain between developed and emerging markets. In Southeast Asia, countries like the Philippines show promising figures but still fall short of global averages in female representation on boards. Family firms, which dominate the Philippine corporate landscape, present unique dynamics that influence board composition and firm performance. From the socioemotional wealth (SEW) perspective, family members may prioritize maintaining control and preserving the family reputation over profit-maximizing objectives, influencing their governance practices and board composition. This study fills a gap in the literature by differentiating the impact of family- and non-family-affiliated female directors on the firm performance of publicly-traded family non-financial firms in the Philippines from 2003 to 2018. We use the generalized method of moments (GMM) approach to mitigate endogeneity concerns. Potential findings can inform policymakers about the possible complexities of promoting female representation on boards by considering the affiliation of female directors in family firms.

### **The Intergenerational Effects of Mobile Phone Ownership on the Educational Outcomes of Filipino Households**

Raphael Manuel Ramos  
*De La Salle University Manila*

Mobile phones have revolutionized many aspects of daily life. However, limited studies have examined the effects of these gadgets across generations. This paper aims to contribute to the literature on intergenerational transmission and the impacts of mobile technology. In particular, this study investigates the intergenerational effects of mobile phone ownership on the educational outcomes of Filipino households. The aforementioned intergenerational

effects will be measured using the pseudo-panel methodology and repeated cross-sections, providing insight into the viability of such when panel data is unavailable to researchers. The paper also discusses the avenues that mobile phones can impact educational outcomes, from democratized resources to increased parental involvement. The potential implications of this study can be beneficial in terms of the role of mobile technology in education and in increasing access to said technologies.

### **Sectoral Emission Intensities and Carbon Leakage Across Economies**

Erin Ramone A. Carandang and Krista Danielle S. Yu

*De La Salle University Manila*

Power generation is one of the sectors that produces the largest amounts of carbon emissions. As electricity demand rises with economic growth, countries face the challenge of reducing emissions while ensuring energy security. Considering cleaner energy sources in the power generation mix is crucial to addressing this issue. This study investigates these transitions by calculating consumption-based accounting (CBA) and production-based accounting (PBA) emissions to determine sectoral emission intensities and carbon leakages across economies. Our findings provide detailed insights into the emissions profiles of various sectors, offering implications for transitioning to cleaner energy sources.

## **SESSION C5**

### **Agriculture, Food Security, and Rural Development**

#### **Factors Affecting the Rice Import Dependency of Selected Southeast Asian Countries**

Aubrey Kyle Cabanlit, Gabriel Joseph Enoc, Jainei Mariquit, Earl Babe Tangian, Martha Joy Abing, Charlyn Capulong, Resa Mae Laygan and Maria Rizalia Teves

*Mindanao State University-Iligan Institute of Technology*

This paper aims to examine the factors affecting the rice import dependency in Southeast Asian nations. This study scoped the annual secondary data for the countries of Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Timor-Leste, Thailand, and Vietnam from 2002 to 2021. Using the Feasible Generalized Least Squares (FGLS) panel regression analysis, findings reveal that population, precipitation, and real gross domestic product per capita are significant and have a positive effect on rice import dependency at 5% level of significance. Meanwhile, land for rice production, agricultural machinery, and government effectiveness significantly reduce rice import dependency in Southeast Asia nations. This result suggests the need for Southeast Asian nations to prioritize expanding rice cultivation areas, investing in advanced agricultural machinery, and enhancing government

effectiveness to significantly reduce rice import dependency. However, regulatory quality and temperature are statistically insignificant to the rice import dependency.

**Effects of Farmers' Machinery Utilization Under Rice Competitiveness  
Enhancement Fund (RCEF) Mechanization Program on Farm Yield and Net Income  
in Selected Rice Farmers in Calamba City, Dry Season, 2024**

Jhorine A. Liwanag  
*University of the Philippines Los Baños*

Tobias (2019) argued that the Rice Tariffication Law (RTL) leaves Filipino farmers poor by competing with cheap imports. In contrast, DA-PhilRice (2019) claimed that RCEF's mechanization program improved productivity and reduced costs. This study evaluated the effects of machinery utilization under RCEF's Mechanization Program on farm yield and net income in Calamba City during the dry season, of 2024. Data from 42 RCEF beneficiaries and 25 non-beneficiaries were analyzed using descriptive statistics, Poisson regression, cost and return analysis, Student's t-test, and Spearman's correlation. Results showed that farm machinery was mainly used for land preparation, harvesting, and threshing. The study found a positive relationship between machinery use and farm yield for both groups, but no significant difference in yield or net income. The study recommends reviewing the RCEF's mechanization program and integrating RCEF's credit and extension services to better support farmers. Future research should explore the program's impacts in other beneficiary areas.

**Analysis of the Credit Needs and Behavior of Tilapia Grow-out Farmers in  
Palakpakin Lake, San Pablo City**

Ria Iselle D. Leynes, Jaymee A. Cabangbang, Christian Paul L. Fang,  
and Jay-al P. Reyes  
*University of the Philippines Los Baños*

Credit access and financial inclusion are crucial for poverty reduction and economic development, especially in the agricultural sector. With continuous declining productivity in the tilapia industry, credit is seen as a tool to mitigate losses and optimize production. This study assesses the credit needs and behavior of tilapia grow-out farmers in Palakpakin Lake, San Pablo City, through interviews with 44 farmers – 11 borrowers and 33 non-borrowers. Cash flow analysis reveals that 33 farmers have credit needs, with only 11 having surplus cash flow. Multiple linear regression identified that the key factors affecting farmers' need for credit are the size of operation and annual savings, influencing it indirectly and directly, respectively. Operational areas and production inputs are also not being fully utilized – further highlighting the gap in equity capital and funds necessary to sustain succeeding operations. Overall, poor financial capacity and credit aversion shape the credit needs and behavior of these farmers.

## Vertical Market Integration and Price Transmission in Philippine Fresh Fish Markets

Lans Gabriel L. Galinea and Hanny John P. Mediodia  
*University of the Philippines Visayas*

Fresh fish is an essential diet component in the Philippines. We analyze the wholesale-to-retail vertical market integration and price transmission in the markets of each of the thirteen top-consumed fresh fish species in the Philippines at the national, regional, and provincial levels from 2012 to 2021. Cointegration, error correction mechanism, and Granger causality were applied to describe the vertical price relationships of each selected species in terms of the presence of a common long-term trend, short-term adjustment period, and predictive causality direction, respectively. We show evidence of spatial and temporal variations in the presence of vertical market integration and the direction of vertical price transmission across the selected species. To accommodate the observed variations, we conclude that there is a need for an area- and period-specific analysis for each of the selected species.

## SESSION C6 Public Finance, Monetary and Financial Economics II

### Fiscal Dominance and the Optimal Maturity Structure of Sovereign Debt

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This paper investigates how fiscal dominance shapes the maturity structure of debt. We develop a dynamic model involving government debt and introduce a novel channel of fiscal dominance, through the maturity structure of debt. We demonstrate how the maturity structure can serve as a conduit for translating an immediate increase in prices into a gradual buildup of future price levels following any spending shock to the government, contingent on specific parametric conditions. To empirically validate the results, we compile a comprehensive granular-level dataset on Indian public debt, comprising central government security-level data from 1999 to 2022. We employ the decomposition methodology proposed by Hall and Sargent (2011) to explore how fiscal dominance influences the maturity structure of debt. Our findings reveal an inverse correlation between short-term interest rates and average debt maturity, accompanied by a positive association between average debt maturity and the debt-GDP ratio. Our paper contributes to understanding the role of debt maturity in monetary-fiscal policy coordination and introduces the ‘maturity structure channel of fiscal dominance.’

## **The Impact of Currency Depreciation and Foreign Exchange Positions on Bank Lending: Evidence from the Philippines**

Cristeta Bagsic<sup>1</sup>, Veronica Bayangos<sup>1</sup>, and Hazel Parcon-Santos<sup>1</sup>,  
and Ramon Moreno<sup>2</sup>

<sup>1</sup>*Bangko Sentral ng Pilipinas*, <sup>2</sup>*Independent Researcher*

This study argues that the impact of currency depreciation on bank lending depends on which of the two opposing channels dominate: the borrower balance sheet effect or the lender balance sheet effect. Findings suggest that, in general, the borrower balance sheet effect is an important consideration for banks' lending behavior, likely highly dependent on the borrowers' unhedged currency mismatch. There is likewise evidence of a positive lender balance sheet effect, but this largely holds true for foreign banks. For domestic banks, the effect of currency depreciations is not likely to increase lending but increase their holdings of relatively safer, lower-yielding investments. This study contributes to the literature by demonstrating that the impact of currency depreciation on bank lending is highly heterogeneous across banks and likely depends on the currency of the loan extended by the bank.

## **Bank Opacity, Risk-taking Behavior, and Solvency of the Top 20 Universal and Commercial Banks (UKBs) in the Philippines**

Jovi C. Dacanay and Gene Matthew E. Chua  
*University of Asia and the Pacific*

The banking sector is fundamental to a country's economic stability. However, as the sector evolves, understanding the dynamics of bank behavior, especially concerning opacity and risk-taking, is crucial for sustaining financial stability. With this, the study aims to answer the question "Does bank opacity and heightened risk-taking behaviors lead to decreased solvency among the top 20 universal and commercial banks (UKBs) in the Philippines?"

While focusing on the top 20 UKBs in the Philippines from 2005Q1 to 2023Q4, the data utilized in this study was sourced from the banks' financial statements, analyzing variables such as Available-For-Sale (AFS) securities to measure bank opacity, Non-Performing Loans (NPL) for risk-taking, and the z-score of Return on Equity (ROE) to assess solvency. The results show first, heightened risk-taking behavior is driven by increasing bank opacity, highlighting the importance of transparency in mitigating financial instability and ensuring robust bank solvency. Second, the results confirmed a significant negative relationship between higher NPLs and bank solvency, highlighting the critical need for stringent risk management practices to ensure financial stability. Third, the significance of bank opacity in this model also suggests that bank opacity does play a mediating role in the relationship between macroeconomic factors and solvency, though its effect is relatively weak. This supports the hypothesis that bank opacity, indicated by the securities available for sale (AFS), partially mediates the relationship between macroeconomic factors and bank solvency.

## SESSION C7 Labor Economics

### **Tempest and Turmoil: Assessing Typhoon Haiyan's Impact on the Philippine Labor Market**

Jitae Kim<sup>1</sup>, Majah-Leah V. Ravago<sup>2</sup> and Gerald Gracius Y. Pascua<sup>2</sup>

<sup>1</sup>*Seoul National University*, <sup>2</sup>*Ateneo de Manila University*

Super typhoons cause enormous damage and are expected to have an even greater impact due to climate change. Taking the case of Typhoon Haiyan in 2013, we analyze how the unexpected exogenous shock affected the labor market in the Philippines. We utilized the nationally representative Labor Force Statistics Survey from 2011 to 2016 and applied an “event study” approach to identify changes in the labor market. We use the difference-in-differences method to examine the net effects of Haiyan on wages and employment. Our analysis shows that after Haiyan, the average wage increased by 4.8%, the probability of being employed decreased by 0.8%, and the weekly working hours of workers declined by 66 minutes in the severely hit region compared to the other areas. Its impact varied by industry, with significant changes in the primary and construction sectors. We also show that after Typhoon Haiyan, its effects decreased as time passed.

### **Examining the Impact of Lowering the Personal Income Tax on the Work Efforts of Filipino Workers**

Edrei Y. Udaundo and Rutchel M. Lacaza

*Congressional Policy and Budget Research Department,  
House of Representatives*

The reduction in personal income tax, leading to higher take-home pay and increased savings opportunities for wage earners, is one of the key features of the Tax Reform for Acceleration and Inclusion (TRAIN) Law implemented in 2018. This study focuses on examining how the reduction in personal income tax influenced labor supply decisions among workers in the Philippines. Using regression analyses with data from the Labor Force Survey, with 2017 as the pre-reform baseline and 2018-2019 capturing the period of TRAIN's implementation before the COVID-19 pandemic, the study explores whether lower tax rates affected labor force participation, workers' propensity to work additional hours, and their usual weekly hours for primary work. After controlling for demographic, employment, and regional factors, the analysis reveals that the first package of the TRAIN reforms had a noticeable impact on these labor supply outcomes. The findings suggest that the tax reform's influence on labor supply was evident, with some workers showing an increased tendency to work more due to the financial benefits of lower tax rates. This research enhances our understanding of how tax policy shapes labor market dynamics in developing countries and highlights the need to consider the broader economic context when assessing the effects of tax reforms.

## **Attitudes Toward LGBT Supervisors: Experimental Evidence from the Philippines**

Melisa Fabella-Esmalla, Mai Seki, and Makoto Kakinaka

*Ritsumeikan University*

Despite existing studies documenting workplace discrimination against LGBT individuals, how employees' job preferences are influenced by having an LGBT immediate supervisor remains unknown, particularly in developing countries. Utilizing a choice-based conjoint experiment with 613 working-age Filipinos in Metro Manila, Philippines, we examine how information framing regarding LGBT supervisors influences employee preferences. Although the Philippines is known as one of the most accepting countries in the world toward LGBT individuals, our results show that Filipinos generally perceive LGBT immediate supervisors as less favorable, compared to their heterosexual counterparts. Negative attitudes are particularly stronger among cis males, individuals without personal contact with sexual minorities, and those who highly value religion. Interestingly, no significant differences were observed across age, education, or income levels. The implications and future direction of the study on views and attitudes toward LGBT people are further discussed.

## **Female Entrepreneurs and Executives as Natural Catalysts of Human Flourishing**

Diana Rueda

*University of Asia and the Pacific*

In business and management, women have exemplified unique and distinguished leadership with the ability to balance empathy and care with a focus on deliverables and work that helps employees grow or flourish. Human flourishing, which stems from the Aristotelean concept of eudaimonia, concerns the development of virtues as the basis of well-being. When applied in the workplace, human flourishing helps employees grow by establishing good intrinsic values that strongly influence them more than material compensation. Given these, this study explores how women entrepreneurs and executives could be natural catalysts of human flourishing in their workplaces.

## **SESSION D1 Philippines Growth and Jobs Report (WBG session)**

The Philippines has seen an acceleration in economic growth during the past 15 years. This has been a story of economic convergence within households, firms, and regions; a reallocation of resources from lower to more productive activities; greater capital accumulation rather than productivity; and a marked inward focus in economic activity. The Growth and Jobs Report seeks to answer the central question of how to maintain inclusive, sustainable growth



momentum in the Philippines. It examines the drivers of growth and structural transformation, trade, and job creation at the macro level, and firm dynamics and links between the regulatory environment and firm performance at the micro level. The report also presents a deep dive into specific development challenges in the areas of the digital and green transition, the spatial patterns of subnational structural transformation, and policy recommendations centered around a growth and jobs strategy.

## SESSION D2 Devolution 2.0: Fiscal and Other Implications of Amending EO 138 (NEDA session)

This session will focus on the impact of decentralizing economic activities and promoting localized development initiatives. Key areas of discussion may include empowering local government units, fostering community-driven development, and supporting local industries. The session will also address the challenges of decentralization, such as funding, capacity building, and ensuring equitable growth across regions.

This session will focus on the proposed reassignment of devolved functions across local government units (LGU), and its implications on the fiscal, service quality, and absorptive capacity of LGUs. Key areas of discussion may include the adequacy of the proposed design to address local development challenges, and the phasing-in, financing, capacity building of LGUs and monitoring of implementation. Presenters from key national government agencies and local governments will present their points and counterpoints.

## SESSION D3 Socio-ecological Systems Within the AANR Sector in Philippine Rural Communities (ACIAR session)

This session, sponsored by the Australian Centre for International Agricultural Research (ACIAR) in partnership with the Australian Alumni Agriculture, Aquatic and Natural Resources Community of Practice (AANCoP), highlights the complexities of the social and ecological systems within the AANR sector. As local communities in the Philippines continue to address the increasing anthropogenic pressures on natural resources and the growing imperative for sustainable development, there is a need to further understand how the AANR sector is influenced by the existing socio-economic institutions and ecological conditions in different rural communities in the country. Papers in this session explore the significant role of different stakeholders in improving the benefits and responding to the challenges in the AANR sector. In particular, the session will tackle the challenges associated with

balancing economic development and environmental conservation while considering their inherent interconnectedness. The significance of these papers is grounded in their potential contribution to both development theory and practice. Their findings can inform policies and the planning process, which could further support the needs of the AANR sector and most importantly, its stakeholders in the rural communities. This session offers an opportunity for an exchange of ideas and discussions among AANR scholars in the Philippines.

### **Valuing Water Ecosystem Service Provision for Irrigation of Rice Farming in Sta. Cruz River Watershed**

Richelle Marie B. Legaspi<sup>1</sup>, Canesio D. Predo<sup>2</sup>, Cristino L. Tiburan Jr.<sup>2</sup>,  
Marisa J. Sobremisana<sup>1</sup> and Maria Victoria O. Espaldon<sup>1</sup>

<sup>1</sup>*School of Environmental Science and Management, UPLB*

<sup>2</sup>*College of Forestry and Natural Resources, UPLB*

This study primarily aims to estimate the economic value of the improved water ecosystem service provision for irrigation on the downstream rice farms of Sta. Cruz River Watershed through the application of catchment management. We applied the Integrated Valuation of Ecosystem Services and Tradeoffs (InVEST) in quantifying annual and seasonal water yield based on current and future land use land cover. Economic valuation was implemented using resource rent and production function approach where water is used as input on rice production in the downstream rice farms of Sta. Cruz River Watershed from a farmers' survey of 60 respondents. Results showed that Increased Development Scenario (IDS) obtained the highest annual water yield and quickflow production (120,917,364 m3 in 2020 and 119,238,838 m3 in 2030). Catchment Management Scenarios (CMS) generated lower values on annual water yield and quickflow (140,116,037 m3 in 2020 and 138,668,810 m3 in 2030), implying their capacity for surface run-off retention and flood mitigation in the wet season. In monetary terms, water yield has resulted in a positive resource rent and marginal value product of about Php1,962 per m3 and Php175 per m3, respectively. Based on the results, the study provided some policy implications for market-based mechanisms towards improved water ecosystem service provision for irrigation through sustainable catchment management.

### **An Application of Analytic Hierarchy Process Approach towards Decision-making Dynamics of Players in the Philippine Vegetable Supply Chain**

Gideon Neil D. Tan, Frances Isabelle C. David, Lady Mae Sebidos,

Fe Kristine V. Albosta, Ian Dave Custodio, Moises Neil V. Serioño,

Hadasha N. Bongat, Jaygee Yessamin Ramirez, Roseli-Fatima J. Sosmeña,

and Lilian B. Nuñez, and Oleg Nicetic

*College of Management and Economics Visayas State University*

The paper investigates the decision-making dynamics within the Philippine vegetable supply chain, characterized by fragmentation and independent decision-making by various players. We aim to identify the key criteria influencing these decisions, particularly in supplier and buyer selection, to provide insights into how the chain functions. The Analytic Hierarchy Process (AHP) was used to identify and rank the criteria influencing decision-making among different vegetable supply chain players. We collected data through interviews with 60 individuals involved in the vegetable supply chain in selected cities in Leyte, Philippines, and analyzed the results using Super Decisions software. The results reveal that pursuing economic benefits remains a dominant factor in decision-making across the vegetable supply chain, although specific priorities vary depending on each player's role. Our research also highlights a misalignment of priorities among the different players and underscores the critical role of wholesalers in influencing the overall dynamics of the supply chain. The AHP-based framework helps businesses and governments identify areas for improvement in their supply chains by understanding the priorities of different participants, leading to more effective and sustainable solutions. However, the study's limitations, including its geographical scope and the inherent subjectivity of the AHP method, highlight the need for further research to validate and expand the findings. The study contributes to the existing literature by providing a deeper understanding of the decision-making processes of various players in the Philippine vegetable supply chain, which has been largely unexplored in previous research. The Analytic Hierarchy Process (AHP) application offers a simplified approach that can model and analyze these decision-making dynamics, providing valuable insights for enhancing supply chain efficiency and sustainability.

### **Exploring the Application of Sustainable Rice Platform (SRP) as Innovative Performance Indicators for the Evaluation of Rice Competitiveness Enhancement Fund (RCEF)**

Lemuel S. Preciados and Caesar Peter D. Aves  
*Department of Economics, Visayas State University*

The importance of lowering environmental costs in agricultural food systems while increasing yields has lately gained prominence, as it has a substantial impact on the long-term sustainability of environmental and economic progress. To address this issue, a global multi-stakeholder alliance of the public, business, research, civil society, and finance sectors formed the Sustainable Rice Platform (SRP). The SRP encourages widespread adoption of sustainable practices throughout the rice value chain by utilizing a three-pillar evaluation approach (economic, environmental, and social) to establish sustainability targets. Our study attempted to investigate the utilization of various indicators, such as nitrogen use efficiency (NUE), yield, and benefit-cost ratio (BCR), as innovative sustainability metrics for evaluating the holistic effects of the Rice Competitiveness Enhancement Fund (RCEF). We found the number of farms experiencing unsustainable levels and benchmarked the sustainable-performing farms using these three essential parameters. We used proportionate random sampling

procedures to interview 301 rice farmers in Ormoc, Leyte, including 139 RCEF beneficiaries and 162 non-RCEF beneficiaries. Based on the 2023 cropping season, we discovered that around 60% of these farms are in the sustainable NUE category, while 40% are still operating under unsustainable NUE (using excessive N fertilizer or mining soil N). However, we observed that most unsustainable performers come from non-RCEF beneficiaries. We also discovered that, compared to before and after the RCEF implementation, more Ormoc rice fields had transitioned from unsustainable to sustainable levels. The RCEF programs resulted in significant positive improvements in yield and benefit-cost ratios. Furthermore, we used the PSM-DID econometric technique and pooled OLS models to provide more robust estimates of the net effects of RCEF and the reasons driving the differences in sustainable performance metrics among the rice farmers surveyed. We hope that the findings of this critical assessment of RCEF's effects on yields, profit, and environmental outcomes will catalyze the developing best-fit, cost-effective, and climate-smart policies to improve the sustainability performance of smallholder rice farms not only in Leyte but also in the Philippines and beyond.

### **Why Engage Stakeholders in Payments for Ecosystems Services?: The Case of Manupali Watershed In Lantapan, Bukidnon**

Caroline D. Piñon<sup>1</sup>, Delia C. Catacutan<sup>2</sup>, Grace Ann R. Salvan<sup>2</sup>, and  
Margaret M. Calderon<sup>3</sup>

<sup>1</sup>*College of Human Ecology, UPLB*, <sup>2</sup>*World Agroforestry*,

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In more than two decades of implementing payments for ecosystem services (PES) in the Philippines, stakeholder engagement has been found crucial to the success of many local schemes. Stakeholders include the ecosystem services (ES) providers who are mostly upland farmers or communities, national and local government units, non-government organizations as brokers or intermediaries, and ES buyers mostly private and/or government-owned controlled corporations (GOCCs). We share our experience in developing a PES scheme in Bukidnon Province, particularly involving a hydroelectric power GOCC to protect the Manupali Watershed and secure water supply for the National Power Corporation's (NPC) reservoir. The feasibility of PES as an innovative funding option for watershed protection was first explored in 2006 while the design process started in 2010 in close collaboration with farmers, local and national agencies, and a research organization to ensure that desirable land use practices, payments rates and schedule, and conditionalities are mutually agreed between parties. The 3-year Family Approach to Reforestation and Agroforestry Development scheme was first implemented in 2014 within selected sub-watersheds in the Manupali Watershed. Implementation of the scheme continued with sites expanding around the Mt. Kitanglad Range Natural Park. With the NPC contributing to the park and watershed protection through this scheme, it is also contributing to building local resilience and inclusion—fostered by strong stakeholder engagement throughout the process. Local enabling policies, evidence-based information, the presence of local champions, and a safe space built on

trust and commitment were in synch and catered to the need for effective development and implementation of the PES scheme. Our experience suggests that it is extremely important to foster strong stakeholder engagement from design to implementation if PES schemes are to be successful.

### **The Highs and Lows of Tourism: Analyzing Inflationary Pressures in Sagada's Local Economy and Agriculture**

Dezcery Valeña<sup>1</sup>, Jemelene Arizapa<sup>1</sup>, Nico Jayson Anastacio<sup>1</sup>,  
Gemmelyn Trespalacio<sup>2</sup>, Danesto Anacio<sup>3</sup>, Samantha Geraldine de los Santos<sup>1</sup>,  
Johnnelda Cosep<sup>1</sup>, and Maria Francesca Tan<sup>1</sup>

<sup>1</sup>*College of Public Affairs and Development, UPLB*, <sup>2</sup>*DOST-PCAARRD*,

<sup>3</sup>*School of Environmental Science and Management, UPLB*

Exposure to public media, particularly a series of movies highlighting the beauty of Sagada, Mountain Province, and the attractions available in the area, has led to an apparent increase in tourist arrivals. The surge of tourists has resulted in higher demand for accommodation, transportation, and food services. As a result, these services have increased patronage, straining the agricultural supply chain. This study assesses the relationship between the booming tourism in Sagada and the inflation observed in the area. The study employs the Granger causality test to determine whether the increase in tourist arrivals is a factor for the movement in inflation rates over the period from 2000 to 2023. This will help assess the hypothesis that an increase in tourism has inflationary implications for the agricultural commodities of Sagada. Additionally, this research conducts a multivariate regression analysis to examine the relationship between tourism and inflation. The results of the study would aid in the development of strategies for local farmers to maximize their potential resources of agricultural commodities to accommodate tourists' arrival in Sagada.

## **SESSION D4**

### **Young Economists Panel: Local Perspectives on National Challenges**

Ekonsepto is a non-profit youth-led organization founded in 2020 that promotes economic literacy through Information, Education, and Communication (IEC) materials. As part of our mission to encourage youth's participation in economics discourse, this panel brings together undergraduate and graduate students, as well as young economists, to share their fresh perspectives on the PES theme of economic resilience, inclusion, and localization. The presentations range from an assessment of Local Government Unit (LGU) initiatives, and a historical economic analysis of budgetary expenditure for economic growth, both of which are highly relevant for the greater autonomy of LGUs—to the macroeconomic preliminary analysis of the Philippine blue economy, that are timely amidst Chinese-Philippine trade

and diplomatic relations. Senior discussants from Ekonsepto will provide expert feedback, enriching the conversation and guiding the next generation of economists.

**Revitalization Initiatives of the Local Government:  
A Case Study of the Balut Industry in Pateros, Metro Manila**

Cielo Grace F. Bacani, Genea Gail V. Kampana and Patricia Gael A. Sarical  
*Polytechnic University of the Philippines Manila/Ekonsepto*

Following an incessant decline, the local government of Pateros initiated revival efforts for its Balut industry through the Balut incubator technology project and tax exemptions for Balut businesses. These initiatives were analyzed using a qualitative case study, employing a semi-structured interview with five registered Balut businesses and four key informants, notably officials and representatives from Pateros and the Department of Science and Technology. The findings highlight the complexities of the revival endeavors, with strengths encompassing convenience and cost-effectiveness of egg processing and streamlined business requirements. Weaknesses manifested through incubator technology usage limitations and insufficient tax benefits. Opportunities lie in diversifying and enhancing duck egg quality, increasing local government support, program expansion, and leveraging Balut as a delicacy. Challenges include misconceptions about programs, lack of project monitoring, duck-egg supply shortages, and resistance to modern technology. Therefore, enhancing and expanding revitalization efforts is necessary to support businesses and overcome industry challenges.

**Guns and Butter: The Tradeoff Between Defense and Social Expenditure  
in the Philippines (1981-2022)**

Axl Fitzgerald L. Bulawan  
*University of the Philippines Tacloban College/Ekonsepto*

Tradeoffs, as a result of scarcity, are at the center of economics. One common tradeoff is the guns and butter, the budgetary tradeoff between defense expenditure and social expenditure. Using Budget of Expenditures and Sources of Funding (BESF) data from 1981 to 2022, this study used regression analysis to determine whether this tradeoff exists in the case of the Philippines. It found no evidence that increased defense expenditure has a negative effect on social expenditure, as represented by education expenditure. On the contrary, it found that defense expenditure induces education expenditure. This study also attempted to test the Benoit hypothesis using Philippine data, a hypothesis that posits that defense spending results in economic growth. Building on Dariano's (2015) earlier work, this study used Granger causation analysis to determine the causal relationship between defense expenditure and social expenditure to GDP and vice versa. It found that social expenditure Granger causes economic output, while no appropriate lag order length was selected to be able to prove the Benoit hypothesis. Results imply the need for greater budgetary allocation to social spending in order to increase economic output.

## Achieving Economic Security through the Blue Economy

Marius Stephen V. Torres  
*Department of Finance/Ekonsepto*

The study aims to develop a Blue Economy (BE) Strategy that encourages the Philippine Government to simultaneously promote the twin pursuits of maritime and economic security, and encourage the adequate management of risks to optimally utilize the opportunities associated with the traditional (fishing and tourism) and emerging (marine technology and renewable energy) BE industries. The study found out that the BE holds one of the keys to achieving inclusive growth and sustainable development in the Philippines; achieving the country's goal of 100 percent food-fish sufficiency by 2028 will require improving management of fish stocks; conserving marine ecosystems plays an integral role in protecting coastal communities from the effects of climate change; strengthening the tourism industry will further boost economic activities by creating demand for both consumption and investment; and the Philippines can explore and invest in marine technology and renewable energy to unlock the BE's economic and development potential.

## SESSION D5

### Should We Still Be Whispering in the Ears of Princes?: Sobering Findings from Our Agricultural Sector

The papers in this session demonstrate the urgent need to think and act more systematically and strategically when it comes to our agricultural sector. Because this sector does not reside in a vacuum, the stakes are higher especially when we want to break free of low productivity and compete in the world economy. Therefore, we want the audience to have a heightened awareness of the problems in the agricultural sector, as evidenced by the papers in this session. We also want the audience, in whichever sector they belong to, to use this awareness and help in communicating these problems more clearly, directly, and in a coordinated manner to policymakers.

### Are Our Food and Nutrition Systems Transformation-ready?: Assessing the Food and Nutrition Policy and Governance Landscape in the Philippines

Geny F. Lapiña, Aileen V. Lapitan, Samantha Joyce P. Manalastas  
and Charis Mae T. Neric

*University of the Philippines Los Baños*

Global challenges such as hunger, malnutrition, and environmental degradation have intensified the need to transform food systems, making it a critical agenda for sustainable development, particularly in relation to the food and agriculture sectors. This transformation necessitates a radical shift, not only in increasing food supply but also in integrating food

security with healthy diets, improving livelihoods, and fostering environmental sustainability. However, the readiness of the Philippines' food system for such transformation remains a challenge, despite various government policies and programs aimed at enhancing food production and nutrition. This paper examines the policies and governance frameworks in the Philippines to assess their role in preparing the country's food systems for transformation. It explores potential overlaps and gaps in these policies and provides insights for future research and policy considerations to achieve a cohesive strategy for food systems transformation in the country.

### **Bitter or Sweet?: Impact and Insights From Sugar Trade Liberalization**

Jaymee A. Cabangbang, Cenon D. Elca, Geny F. Lapiña, Nora D. Carambas,  
and Samantha Joyce P. Manalastas  
*University of the Philippines Los Baños*

This study presents the implications of trade liberalization on the Philippine sugar industry. It presents an overview of the sugar industry, including its historical context and prevailing trade policies; and an analysis of the industry's cost structure across its entire value chain, supplying critical data for evaluating its competitiveness in a changing trade environment. Moreover, the study explores price competitiveness and presents its findings on its welfare analysis to assess the potential impacts on diverse stakeholders, such as farmers, millers, and consumers. The study ends with recommendations that aim to harmonize the objectives of trade liberalization with the imperative of sustaining the industry and ensuring the welfare of its stakeholders.

### **Spatial Dependence in Groundwater Factor Demand of Lowland Rice Farmers**

Antonio Jesus A. Quilloy, Jaymme A. Cabangbang, Ye Tun, and  
Gillian Katherine I. Quilloy  
*University of the Philippines Los Baños*

This paper analyzed spatial dependence in the demand for groundwater in rice production for a complete enumeration of 93 rice farmers in Lumban, Laguna, Philippines. Spatial dependence was analyzed using a Spatial Durbin Model (SDM). A least squares analysis was used to estimate the global non-spatial groundwater demand model and showed that demand for groundwater was influenced (at a 5% level of significance) only by the shadow price of groundwater. However, diagnostic tests revealed that the model suffered from omitted variable bias. The SDM regression analysis detected a spatial global spillover effect (at a 1% level of significance) in terms of the dependence of a given farmer's groundwater extraction on its spatial lag. Local spillover effects in terms of the impacts of the spatial lags of the shadow price of groundwater and target yield were also detected (at 1% significance).



## **Estimating and Decomposing the Productivity of the Rice Production Industry in the Philippines**

Albert E. Lamberte, Marites Tiongco, Eva Marie Aragonés,  
and Emmanuel Barnedo  
*De La Salle University Manila*

This study aims to determine the factors of the agricultural sector and its impact on food prices to preserve households' purchasing power by ensuring food security. High food prices are a result of a lack of an efficient agri-food system, legislative barriers, and institutional challenges in governance and policy. And this is intricately linked with food security and poverty alleviation. The most economically vulnerable households allocate approximately 60 percent of their total income to food expenditures; any price hikes in this regard will further strain their already tight budgets. Escalating food prices can result in malnutrition and related socio-economic issues.

## **SESSION D6**

### **Headline Inflation, Government Transfers, and Financial Inclusion**

To traverse innovative pathways for economic resilience, inclusion, and localization in the Philippines, we need good measurements, a theory that is sensitive to our context, and facts that can be tracked over time. In this session, we present three pieces of research that separately take on the challenge of addressing those needs. The first paper is of intrinsic interest to anyone who is concerned with the measurement of inflation. The second paper estimates the proportion of vulnerable households within the framework of a mainstream DSGE model. The third paper documents what has happened to financial inclusion over the past decade.

### **Reducing the Upward Bias of Philippine Headline Inflation: Theory and Application**

Jesus C. Dumagan  
*De La Salle University Manila*

The upward bias of Philippine “headline” inflation – the rate of change of the “All Items CPI” by the Philippine Statistics Authority (PSA) – is problematic because it overstates the “true” cost of living. Moreover, since the CPI deflator equals  $(1 + \text{inflation rate})$ , the upward bias understates the “deflated” or real values of important economic variables (e.g., consumption components of real GDP, real wages, real interest rates, etc.) with dire implications for the conduct of economic analysis and policy. This upward bias is known in theory but has been ignored except in a rare Bangko Sentral ng Pilipinas study (Bayangos and Estigoy, 2010) that indicated this bias by finding that the All Items CPI is higher than a geometric price index, which is a “modified” Tornqvist index with base-year expenditure shares as weights. This study

revisits and expands the issue by comparing headline inflation to inflations from Laspeyres and modified Tornqvist price indexes based on statistically significant bias estimates supported by expenditure minimization theory (Varian, 1984) that implies the Laspeyres price index is the “upper” bound to the true cost-of-living index. However, PSA’s Consumer Price Index Primer describes the All Items CPI that generates headline inflation as a “variant” of the Laspeyres price index. Consequently, this study will show—from earlier analytic findings (Diewert, 1976, 1978; Dumagan, 2002; Dumagan and Ball, 2009; Dumagan, 2022; Dumagan and Eloriaga, 2024) applied to PSA CPI data (January 2012–2021)—that headline inflation could be higher than Laspeyres inflation, thus, violates expenditure minimization that implies Laspeyres should not be exceeded empirically because it is the theoretical upper bound. Moreover, between the three inflations, this study will show that modified Tornqvist inflation is the lowest and, therefore, better than Laspeyres to replace the headline and reduce the latter’s upward bias.

### **Are transfers Expansionary?: A DSGE Approach**

Lawrence B. Dacuycuy  
*De La Salle University Manila*

Does an unanticipated shock to government transfers have real effects? Do transfer shocks increase the consumption of vulnerable households? These questions matter because of the documented governmental actions to ameliorate unfavorable market adjustments due to crises and other economic downturns. To answer these questions, we estimated, using Bayesian approaches, a medium-scale dynamic stochastic general equilibrium (DSGE) model with rich fiscal properties using quarterly Philippine data series from 2002Q3 to 2021Q3. The DSGE model incorporates optimizing and vulnerable households, making it suitable for measuring the real effects of government transfers. While the estimated model yields other results of empirical importance, we zero in on government transfers. The paper addresses the following issues related to (a) the magnitude of vulnerable households, (b) the reaction of output and consumption growth to unanticipated transfer shocks, and (c) the stability of the fiscal transfer rule. Posterior estimates show that 63% of households are vulnerable to shocks because of their relative inability to respond to shocks. Unanticipated transfer shocks have transitory positive effects on consumption and output growth that last 1 quarter. Such shocks also improve the consumption of vulnerable households. Finally, transfers react negatively to increasing debt-to-GDP ratio but exhibit procyclicality with respect to the aggregate cycle – clear signs that mechanisms are in place to discourage transfers during periods of increasing indebtedness.

## **Has Financial Inclusion in the Philippines Improved Over the Past Decade? Findings From Four Waves of the Global Financial Inclusion Database**

Denise Ysabel P. Cebrero, Lawrence B. Dacuycuy, and Andrew Adrian Pua  
*De La Salle University Manila*

We replicate Debuque-Gonzales and Corpus (2021) and extend their study to describe what has happened to financial inclusion in the Philippines using the Global FINDEX database for the decade covering 2011 to 2021. Debuque-Gonzales and Corpus (2021) found that individuals with less educational attainment and those from less wealthy households are less likely to participate in the formal financial sector. We found that disparities across education and income levels persisted and worsened over the past decade. Minimal use of services adjoined to financial accounts implies the lacking and ineffective integration of socially and financially excluded individuals.

## **SESSION D7 Economics of Education and Learning Poverty**

### **Efficiency of Public Education Spending in the Philippines: A Data Envelopment Analysis**

Julius I. Dumangas and Rutchter M. Lacaza  
*Congressional Policy and Budget Research Department,  
House of Representatives*

The COVID-19 pandemic significantly impacted government spending on education worldwide, challenging governments to allocate resources efficiently while maintaining essential education services. This study employs Data Envelopment Analysis (DEA) to assess the efficiency of public education spending in the Philippines from 2018 to 2023, using school divisions as the decision-making units. Utilizing annual net enrollment rates, retention rates, and completion rates as output indicators, and education public spending as the input measure, this study sheds light on the efficiency and effectiveness of public education investments in the Philippines. While public spending on education increased over the period studied, the DEA analysis reveals efficiency trends were disrupted by the pandemic. On average, the current performance of the basic education system could have been achieved using only 67% of its current spending. Conversely, a 28% improvement in educational outcomes is also potentially attainable with current expenditure levels. Regional disparities were also observed, with Metro Manila, Central Luzon, and CALABARZON being the most efficient regions, and BARMM, Eastern Visayas, and MIMAROPA least efficient. The slow recovery of efficiency scores emphasized the need for targeted interventions to optimize resource utilization and improve educational outcomes across the Philippines, particularly in regions facing greater challenges.

## **Learning Loss and Recovery from the COVID-19 Pandemic: A Systematic Review of Evidence**

Rhea M. Molato-Gayares<sup>1</sup>, Nina Ashley Dela Cruz<sup>2</sup>, Ann Jillian Adona<sup>3</sup>,  
and Albert Park<sup>1</sup>

<sup>1</sup>*Asian Development Bank*, <sup>2</sup>*Lanzhou University*, <sup>3</sup>*Independent Researcher*

This systematic review covers 56 studies that measure the effects of school closures on learning outcomes during the coronavirus disease (COVID-19) pandemic and 20 studies that evaluate the impact of measures to reduce learning loss. It restricts attention to evaluations with credible control groups and provides the first meta-analysis of learning losses that covers more developing countries (21) than developed ones (15). We find that a year of school closure is associated with learning loss equivalent to 1.1 years' worth of learning and that school reopening mitigates these losses down to 0.5 years. With regard to measures to reduce learning loss, we find that tutoring delivered either in-person or through mobile phones has positive, statistically significant effects on mitigating learning loss.

## **Is there a “Grade Penalty” for College Students Mismatched with their Senior High School Tracks and Strands?: Evidence from the University of the Philippines Diliman**

Jan Carlo B. Punongbayan<sup>1</sup> and Jefferson A. Arapoc<sup>2</sup>

<sup>1</sup>*University of the Philippines School of Economics*

<sup>2</sup>*University of the Philippines Los Baños*

What if college students take up degree programs that are significantly different from the tracks and strands they took in Senior High School (SHS)? We use a novel combination of admissions and registration data from the University of the Philippines Diliman to test whether the matching between SHS strands and college degree programs has any bearing on college students' academic performance. Propensity score matching shows that mismatched students do not have significantly lower grades—except for those in specific colleges, namely the science and engineering colleges, which ideally require students to graduate from the Science, Technology, Engineering, and Mathematics (STEM) academic strand. These findings of a “mismatch penalty” have important implications for the offering of Senior High School tracks and strands and the admissions policies of universities that wish to maintain academic standards.

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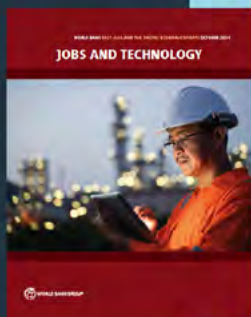
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# PHILIPPINE ECONOMIC SOCIETY

## THE SOCIETY

Founded in 1962, the Philippine Economic Society (PES) is a non-stock, non-profit association of professional economists in the Philippines. As an association of professional economists, PES seeks to attain the following objectives: 1) to foster and encourage professional and social relations among economists in the Philippines; and 2) to improve the standards of economic research and instruction in the Philippines. Over the years, the Society has served as one of the strongest networks of economists in the academe, government, and business sector. The PES continuously provides a venue for open and free discussion of a wide variety of policy issues through its conferences and symposia.

## HISTORY

Philippine Economic Society was founded in August 1962 through the efforts of young social scientists and business graduates who had just received their degrees from various schools in the United States. Among them are Amado Castro, Benito Legarda Jr., Quirico Camus Jr., Jose G. Fernandez Jr., and Armand Fabella, who were graduates of Cambridge, Massachusetts, U.S.A.

This small but influential group of like-minded people, including some foreign scholars, formed an informal association which they called the "Social Economy Association" where they discussed issues affecting the economy and the society. Aside from those already mentioned, Joachim Ahrensdoerf, Thomas McHale, Sixto K. Roxas, Fr. Michael McPhelin of the Ateneo, Oscar Lopez, Felix

de la Costa, Onofre Corpuz, and Juan Ponce Enrile also took part in some of the social economy discussions.

Were it not for certain incidents that occurred during this period, such informal discussions would not have led to the organization of the Philippine Economic Society (PES). The two events that catalyzed the immediate organization of PES are the Columbia Research Project in 1958 and the visit by a group from the International Economic Association.

The PES core group was dominated by notable economists and a few professionals with business training. The Society's first three presidents were Armand Fabella, Amado Castro, and Benito Legarda, Jr.

(For the complete history of PES, read: *The Early Years of the Philippine Economic Society* by Gerardo Sicat (From the Philippine Economic Journal, Vol XII No. 1, 1974)

## MEMBERSHIP

Membership to PES is individual or institutional. Individual members refer to individuals who have obtained a bachelor's degree or higher degree with a major in economics, or who, in the opinion of the Membership Committee, has shown sufficient familiarity and understanding of the science of economics to warrant admission to the Society. Individual membership is further categorized into Lifetime, Annual Regular and Student memberships.



# PHILIPPINE ECONOMIC SOCIETY

Institutional members, on the other hand, include any academic, government, or corporate institution doing related work in economics and support the promotion of economic literacy in the country.

For more information on membership guidelines and procedures, please visit the PES website at <https://economicsph.org/membership>.

## **ECONOMIC AND FINANCIAL LITERACY**

The PES is mandated by law, under the Economic and Financial Literacy Act (Republic Act No. 10922), to coordinate with the National Economic and Development Authority (NEDA) in leading and encouraging the participation of the private sector and civil society during the Economic and Financial Literacy Week every second week of November.

Throughout the year, the PES organizes fora, symposia, trainings, and workshops aimed at developing an economically and financially literate people who can help in realizing the country's potential for growth. These economic and financial literacy activities of the PES culminate in its annual meeting and conference in November.

## **NETWORKS**

The PES is a member of the following associations:

Philippine Social Science Council (PSSC). The PSSC is a private, non-stock, not-for-profit organization of professional social science associations in the country. It aims to advance the Philippine social sciences

and, at the same time, serve as a platform for interdisciplinary dialogue and activities.

Federation of ASEAN Economic Associations (FAEA). The FAEA is a union of economic societies and associations in Southeast Asia and currently comprises the respective economic societies of Cambodia, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. It aims to promote the study of economics and its implications, and foster cooperation in research and intellectual discourse among member-countries.

Western Economic Association International (WEAI). Founded in 1922, the WEAI is a non-profit, educational organization dedicated to encouraging and communicating economic and research analysis. The Association's principal activities include publishing two refereed quarterly journals and staging scholarly conferences that serve as forums for current economic research.

The International Economic Association (IEA) was founded in 1950 as a non-governmental organization at the instigation of the Social Sciences Department of UNESCO. Since its creation, it has maintained information and consultative relations with UNESCO. It is also a federated member of the International Social Science Council since 1973. IEA aims to promote personal contacts and mutual understanding among economists from different parts of the world through the organization of scientific meetings, common research programs, and publications of an international character on economic policies and problems of current importance.



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