

**AGEC 640: Agricultural Development and Policy
Fall 2007**

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Class Meetings: T Th noon-1:15 in Rawls 1071

Class Website: www.agecon.purdue.edu/academic/agec640

Office Hours: MWF noon-1:00 in my office; drop-ins welcome at other times

Course description and objectives. In this course we analyze how the agricultural sector changes over time, interacting with government policies in both the farm and nonfarm sectors. Our goal is to explain and predict major trends and differences across countries, using economic theory to explain and predict what governments will do and how the food and farm sectors are likely to respond.

Prerequisites. The course is designed for first-year graduate students. There are no specific prerequisites, but more advanced students with stronger backgrounds in economics will be able to apply that knowledge in the context of this course. Readings are intended to be accessible for all graduate students, and can be interpreted at various levels of depth.

Structure. The course begins with a brief overview of the major policy issues and drivers of change in the food and agricultural sector around the world. We then spend the bulk of the semester building up the analytical methods and results developed by economists to explain and predict household choices, market outcomes and government policies, starting with farm households' decisions over production, consumption and trade. We consider the role of biological constraints, first for nutrition and health, and then for farm productivity, and ask how those constraints can be overcome through technology and specialization. We ask how market prices are formed, how market outcomes respond to various kinds of changes, and what (if anything) we can infer from those outcomes about changes in the well-being of market participants. We then examine the evidence on what governments actually do across countries and over time, and try to explain those interventions in economic terms. The focus of the course is on these modern "political economy" explanations of policy choices, in which government actions are explained as the result of equilibrium among optimizing people in both the public and private sectors. The course concludes with presentation and discussion of student projects.

Readings. A complete course packet is available at CopyMat in the Chauncey Hill Mall (743-5995). Useful background readings are available on-line, with links provided from the course website.

Course requirements and grading. Grades are based on three homework assignments (10% each), a mid-term and final exam (20% each), and a course project (30%). Links to the three homework exercises are included in the electronic version of this syllabus; opening those documents online offers you live links to the data sources need to complete the assignment. For convenience, printed versions of the homework assignments are also included in the reading packet. The two exams will cover material from both the readings and the lectures, for which slides will be posted online on the day of each lecture. The final exam will be comprehensive, covering both halves of the course.

The course project. Your semester-long project is expected to be an analytical review of the literature and evidence on a researchable question. This will help you get started on a thesis or other research paper, offering the chance to conduct a deeper analysis of the existing literature than might otherwise be possible. A few students already have access to interesting data and an appropriate method, in which case you may wish to produce an original research paper instead of a literature review. I can advise you on what topics are likely to prove most fruitful. Often I will encourage you to do this course project on the same topic as other work you are pursuing so as to specialize and achieve a deeper level of analysis, but sometimes it is preferable to diversify and start research on something new.

The final result of the project is a written report about five thousand words in length (15-20 double-spaced pages, plus charts and tables). You will also present the result in class, using a maximum of six slides. The written version can be longer, if more detail is justified. For class presentation the six-slide limit will be strictly enforced, to help you practice distilling results into a very brief message that can be communicated visually and in person.

To make the project as productive as possible, we will proceed in stages. Immediately after the midterm exam and October break, you must submit a brief description of your chosen topic so we can discuss it in class (October 16th). This will allow you to learn from others' topics and modify your goals accordingly. You must then submit a rough first draft to me for comments (on November 13th), well before the in-class presentations (on November 27 and 29). The final written report is due on the Friday before finals week (December 7th).

CLASS TOPICS AND READINGS

Week 1. Background

Optional Background Materials (not required, not in readings packet)

- World Bank, [World Development Report 2008: Agriculture for Development](#) (Washington, DC, 2007 – draft version only until October).
- FAO, [The State of Food and Agriculture 2006, Part II: World and Regional Overview](#) (Rome: FAO, 2006), pp. 83-107.
- CBO, [“Policies That Distort World Agricultural Trade: Prevalence and Magnitude”](#) (Washington, DC: Congressional Budget Office, Aug. 2005), pages xiii, 1-42, 45-48, 55-57.

Week 2. Introduction to agricultural policy

8/28 Farms, food and the development paradox

8/30 Population growth and economic transformation

Readings:

- Norton, G.W., J. Alwang and W.A. Masters, “Economic Transformation and Growth”, chapter 6 in *Economics of Agricultural Development* (Abingdon: Routledge, forthcoming 2006), 20 pages.
- Tomich, Thomas P., Peter Kilby and Bruce F. Johnston (1995), "Poverty and the Rural Economy" and "Structural Transformation" (excerpts), in *Transforming Agrarian Economies* (Ithaca, NY: Cornell University Press), pp. 9-19 and 35-48.
- Montgomery, Keith (2000), “Notes on the Demographic Transition.” Also available online, <http://www.uwmc.uwc.edu/geography/Demotrans/demtran.htm>.

[Homework #1: Drivers of Change \(due Thursday 9/6 in class\)](#)

Week 3. Farm households and the “industrialization” of agriculture

9/4 Labor day continued (no class)

9/6 Does agriculture industrialize?

Readings:

- Allen, D.W. and D. Lueck, *The Nature of the Farm: Contracts, Risk and Organization in Agriculture* (Cambridge: MIT Press, 2002), excerpts: “Farming in North America” (pages 17-26), “Farm Organization and Vertical Control: Historical and Current Case Studies” (pages 181-191).

Week 4. Nutrition and food markets

- 9/11 Nutrition, health and human capital
9/13 Imperfect information and food demand

Readings:

- Haddad, L. et al., “Nutrition Trends and Implications,” chapter 2 in [The Fifth Report on the World Nutrition Situation: Nutrition for Improved Development Outcomes](#). UN Standing Committee on Nutrition, March 2004.
- Masters, W.A. and D. Sanogo, “[Welfare Gains from Quality Certification of Infant Foods: Results from a Market Experiment in Mali](#)” *American Journal of Agricultural Economics*, 84(4, 2002): 974-989.

Homework #2: Food prices, nutrients and the least-cost diet (due Tuesday 9/18 in class)

Week 5. Farm productivity and technology

- 9/18 Input use and productivity
9/20 R&D and technology adoption

Readings:

- Masters, W.A. “[Paying for Prosperity](#)”, *Journal of International Affairs*, 58(2, 2005): 35-64.
- Alston, J.M, M.C. Marra, P.G. Pardey and T.J. Wyatt, "Research returns redux: a meta-analysis of the returns to agricultural R&D." *Australian Journal of Agricultural and Resource Economics*, 44 (2, June 200): 185-215.

Week 6. Market equilibrium and social welfare

- 9/25 Market equilibrium with trade and policy
9/27 Policy incidence and social welfare: value and limitations of economic surplus

Readings:

- Schmitz, A., H. Furtan and K. Baylis, “Theoretical Considerations” and “Trade and Macroeconomic Effects”, chapters 4 and 5 in *Agricultural Policy, Agribusiness and Rent-Seeking Behavior*. Toronto: University of Toronto Press, 2002), pages 83-118 and 119-153.
- Hines, James R., Jr., "Three Sides of Harberger Triangles." *Journal of Economic Perspectives* 13(2, Spring, 1999): 167-88.

Mid-term Exam (to be given Thursday 10/4 in class)

Week 7. Mid-term review and exam

- 10/2 Wrap-up and pre-exam review
10/4 Mid-term exam

Week 8. October break

- 10/9 *Oct. break -- no class*
10/11 Discussion of exam and course projects

Project Assignment #1: topic for the literature review (due Tuesday 10/16 in class)

Week 9. Discussion of student projects

- 10/16 Presentation/discussion of project topics and literature sources
10/18 *No class – WAM in New York*

Week 10. Measuring policies across countries and over time

- 10/23 Nominal and effective protection
10/25 Aggregate measures of support

Readings:

- Tsakok, I., “Single-Market Analysis: Calculating the Impact of Price Policy,” chapter 6 in *Agricultural Price Policy* (Ithaca: Cornell University Press, 1990), pages 158-182.
- Masters, W.A., "Guidelines on National Comparative Advantage and Agricultural Trade," APAP III Methods and Guidelines Paper No. 4001 (Bethesda, MD: Abt Associates, 1995), pages 1-29.
- OECD, “[Agricultural Policies in OECD Countries: Monitoring and Evaluation 2005](#)” (Paris: OECD, November 2005), pages 33-58.

[Homework #3: Markets, market failures and policy failures \(due 10/24 in class\)](#)**Week 11. Explaining policies: economics of the public sector**

- 10/30 Markets: how far reaches the invisible hand?
The tragedy of the commons, prisoner’s dilemmas and the Coase Theorem
11/1 Policy: how well can market failures be remedied?
Optimal regulation, Pigovian taxes and economics of the second-best

Readings

- Hillman, A., “Private Solutions for Externalities” and “Public Policy for Externalities,” ch. 4.1 and 4.2 in *Public Finance and Public Policy: Responsibilities and Limitations of Government* (New York: Cambridge University Press, 2003), pages 228-294.

Week 12. Rent-seeking and political economy

- 11/6 Rent-seeking and government failure
11/8 Political economy and public choice

Readings

- Hillman, A., “Political Behavior and Public Policy” and “Public Policy and Rent-Seeking Behavior,” ch. 6.2 and 6.3 in *Public Finance and Public Policy: Responsibilities and Limitations of Government* (New York: Cambridge University Press, 2003), pages 416-460.

[Project assignment #2: First draft of the literature review \(due Tuesday 11/13 in class\)](#)

Week 13. Political economy of agricultural policy (continued)

- 11/13 The development paradox explained?
- 11/15 The pattern of protection within countries

Readings

- Anderson, Kym (1995), "Lobbying Incentives and the Pattern of Protection in Rich and Poor Countries." *Economic Development and Cultural Change* 43(2, January): 401-424.
- Helfand, Steven M. (2000), "Interest Groups and Economic Policy: Explaining the Pattern of Protection in the Brazilian Agricultural Sector." *Contemporary Economic Policy* 18(2, October): 462-476.

Week 14. Thanksgiving break

- 11/20 Political economy review and discussion
- 11/22 Thanksgiving (no class)

[Project assignment #3: in-class presentation with slides \(T.-Th., 11/27 or 29\)](#)

Week 15. Project presentations

- 11/27 Student presentations
- 11/29 Student presentations (cont'd)

Week 16. Wrap-up and review

- 12/4 Overview of the policy analysis toolkit
- 12/6 Review for final exam

Readings

- Stiglitz, Joseph (1998), [Distinguished Lecture on Economics in Government: The Private Uses of Public Interests: Incentives and Institutions.](#) *The Journal of Economic Perspectives*, Vol. 12, No. 2. (Spring, 1998), pp. 3-22.

[Project paper \(due Friday 12/7 by 5:00 pm\)](#)

[Final exam \(date to be announced\)](#)

AGEC 640 – Fall 2007 Summary schedule of topics, assignments and readings

Useful background readings (click link for URLs):

Week 1. Background

- 8/21 No class (WAM in Ghana)
- 8/23 No class (WAM in Ghana)

World Bank, [World Development Report 2008](#)
FAO, [State of Food and Agriculture 2006 \(Part II only\)](#).
CBO, ["Policies That Distort World Agricultural Trade"](#)

Date and topic

Required readings (all in photocopied packet)

Week 2. Introduction to agricultural policy

- 8/28 Farms, food and the development paradox
- 8/30 Population growth & economic transformation

Norton, Alwang & Masters, "Econ.Transformation and Growth"
Tomich, Kilby & Johnston, "Poverty..." and "Struct. Transf."
Montgomery, "Notes on the demographic transition"

Homework assignment #1: drivers of change (due Thursday 9/6 in class)

Week 3. Farm households and the "industrialization" of agriculture

- 9/4 Labor day cont'd – no class (WAM in Calif.)
- 9/6 Does agriculture industrialize?

Allen and Lueck, *The Nature of the Farm* (excerpts)

Week 4. Nutrition and food markets

- 9/11 Nutrition, health and human capital
- 9/13 Imperfect information and food demand

Haddad et al, "Nutrition Trends and Implications"
Masters and Sanogo, "Welfare Gains from Quality Certification"

Homework assignment #2 : nutrients and the least-cost diet (due Tuesday 9/18 in class)

Week 5. Farm productivity and technology

- 9/18 Input use and productivity
- 9/20 R&D and technology adoption

Masters, "Paying for Prosperity"
Alston et al., "Research returns: a meta-analysis."

Week 6. Market equilibrium and social welfare

- 9/25 Market equilibrium with trade and policy
- 9/27 Policy incidence and social welfare

Schmitz, Furtan and Baylis, "Theoretical..." and "Trade and Macro"
Hines, "Three Sides of Harberger Triangles."

Mid-term exam (to be given Thursday 10/4 in class)

Week 7. Mid-term exam

- 10/2 Mid-term review and discussion
- 10/4 Mid-term exam

Week 8. Oct. break

- 10/9 Oct. break (no class)
- 10/11 Discussion of exam and course projects

Project assignment #1: topic for the literature review (due Tuesday 10/16 in class)

Week 9. Discussion of student projects

- 10/16 Presentation/discussion of project topics, methods and data sources
- 10/18 No class (WAM in New York)

AGEC 640 – Fall 2007 Summary schedule of topics, assignments and readings (continued)

Date and topic

Required readings (all in photocopied packet)

Week 10. Measuring policies

10/23 Nominal and effective protection

10/25 Aggregate measures of support

Masters, "Guidelines on Comparative Advantage and Trade"

Tsakok, "Single-Market Analysis: Impact of Price Policy"

OECD, "Agricultural Policies in OECD Countries"

Homework assignment #3 : market & policy failures (due Tuesday 10/23 in class)

Week 11. Choosing policies: public economics

10/30 Markets and the Coase Theorem

11/1 Governments and the economics of the second-best

Hillman, "Private Solutions..." and "Public Policy for Externalities"

Week 12. Rent-seeking and political economy

11/6 Rent-seeking and government failure

11/8 Political economy and public choice

Hillman, "Political Behavior..." & "Public Policy and Rent-Seeking"

Project assignment #2 : first draft of the literature review (due Tuesday 11/13 in class)

Week 13. Political economy of agricultural policy (continued)

11/13 The development paradox explained?

11/15 The pattern of protection within countries

Anderson, "Lobbying Incentives and the Pattern of Protection"

Helfand, "Interest Groups and Policy: Brazil Agriculture."

Week 14. Thanksgiving break

11/20 Political economy review and discussion

11/22 Thanksgiving (no class)

Project assignment #3 : in-class presentation with slides (Tues. or Thurs., 11/27 or 29)

Week 15. Project presentations

11/27 Student presentations

11/29 Student presentations (cont'd)

Week 16. Wrap-up and review

12/4 Overview of the policy analysis toolkit

12/6 Review for final exam

Stiglitz, "The Private Uses of Public Interests"

Project paper (due Friday 12/7 by 5:00 pm)

Final exam (date T.B.A.)