Course: Macroeconomic Issues in Agriculture

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Instructor: Philip Abbott
Room 576, Krannert Building
Phone: 494-4274
E-mail: abbottpc@purdue.edu

Secretary: Linda Klotz
Room 565, Krannert Building
Phone: 494-4301
E-mail: lrklotz@purdue.edu

Class Meeting: Rawls 1071
MWF 9:30-10:20

Course Objectives:
Macroeconomic events have been critical to the evolution and fortunes of the agricultural sector - in the US and elsewhere. Recent volatility in the dollar exchange rate has coincided with large swings in agricultural commodity prices, driven by the Euro crisis, global recession and recovery, and by differing monetary policy approaches across countries. The Asian Financial Crisis - fundamentally a macroeconomic event - had according to some analysis profoundly changed trends in international commodity markets. Several earlier watershed events in international agricultural markets -- the 1973-74 World Food Crisis, the 1981-2 LDC Debt Crisis and Russian Grain Embargo, and the 1986 G7 Exchange Rate Accord -- coincided with major shifts in macroeconomic policies and agricultural trends. The IATRC Grain Embargo study, for example, argued that macroeconomic events were more important than the several agricultural sector explanations of the reversals in trade and farm income trends in 1981. Schuh and Thompson have argued for decades that monetary policy and exchange rates are more important than agricultural policy in determining farm income and its variability. Misunderstanding of the relationship between macroeconomics and the agricultural sector had been, according to both Paarlberg and Schultz, the force behind the genesis of US farm policy, with its emphasis on supply control, during the Great Depression. Recent events have shown the importance of macroeconomic variables in determining commodity prices, as evidenced by the effects of the Great Recession on halting the rapid rise of commodity prices in mid-2008, on the effects of the weak Euro during the European Sovereign debt crisis keeping prices lower, and on the continuing debate on “financialization” of commodity markets. Volatility in the value of the dollar, and the extent of trade and government budget deficits, hold significant implications for the future of farm income.
Despite widespread recognition that the macroeconomic environment matters, agricultural economists have realized limited success in incorporating these issues and ideas into their microeconomic-oriented models and in documenting quantitatively the linkages between macroeconomic and microeconomic phenomena. This mirrors the difficulties economists generally have in explaining exchange rate movements, interest rate differentials, inflationary expectations or income growth, likely the most important linkages between agriculture and the macro economy.

The objectives of this course are to expose students to the nature and importance of linkages between agriculture and the macro-economy, and examine theories and methods that might allow us to establish or quantify these linkages in agricultural models. We will explore extensions of macroeconomic accounting and theory into an open economy, examine attempts by agricultural economists to estimate macroeconomic linkages and build them into commodity models, and consider consequences of implicit and explicit macroeconomic assumptions in much of our work. The changing role of agriculture in an economy under structural transformation will be key to understanding these linkages and how they evolve as economies grow, as shown in several recent developments seeking to explain both recent events and policy history in macro-theoretical frameworks consistent with observed empirical regularities.

Readings:
We will use *Macroeconomics*, 8th edition by Andrew Abel, Ben Bernanke and Dean Croushore (Pearson Addison Wesley, Boston, 2014) as a basic reference (The 7th or earlier editions are sufficient for this course). This will be supplemented by numerous additional readings from books, journals and the press, available from the Reserve Desk of the Parrish (Krannert) Library and/or via links on the class web site. Reading available as pdf documents will also be on S:/Restricted Shared/common/AGEC625 during the first week of class. We will cover during class only a portion of the readings included on this syllabus - one intention here is to include at least introductory readings on the key topics in this area for your future reference. A “*” indicates essential readings. Topics to be emphasized in class and assigned readings will be indicated as the course proceeds - we will begin by following the tentative course outline on the class website.

Website:
The course web site may be accessed via Blackboard Learn by logging in using your career account at:

https://mycourses.purdue.edu/

The Syllabus, Course Outline, and access to most Readings are on the course website. Blackboard is necessary to maintain secure grade information access, as well. Links to lecture notes, homework, supporting spreadsheets, and student presentations are from the course outline on that website. Links to readings and references are from the syllabus. Review questions for this course and old exams may also be accessed at the course website.
Course Requirements, Examinations and Grading:
Grades for this course will be determined from performance on:

- Final examination (25%),
- one class presentation (15%) and
- supporting paper (10%),
- occasional homework problem sets (40%),
- and class participation (10%).

The final examination will be scheduled during the week of May 1-6, 2017 (finals week). It will be 2 hours in duration and will cover material from the entire course -- it is a comprehensive examination. Notes, books and handouts will be permitted for the final examination – it is open book and open notes (but no electronic devices). Class presentation topics will be assigned (negotiated) based on student interests. Presentations will review a topic (literature review) rather than cover a single paper, and a written paper (approximately 10 pages) supporting the presentation is required.

Fine Print –
Communication --Please note that my primary out-of-class method of communication will be via email to your Purdue email address. I will not generally attempt to contact you at email addresses other than your Purdue email address. It is your responsibility to check for mail on a regular basis. I recommend checking your Purdue email account at least once every 24 hours.

Special Needs -- If you have a disability that requires academic adjustments, please make an appointment to meet with me during the first week of classes to discuss your needs. Please note that university policy requires all students with disabilities to be registered with Adaptive Programs in the Office of the Dean of Students before classroom accommodations can be provided.

Academic Integrity-- University policy on academic dishonesty is clear: academic dishonesty in any form is strictly prohibited. Anyone found to be cheating or helping someone else cheat will be referred directly to the Dean of Students for disciplinary action. Penalties are severe and may include dismissal from the University. The risks associated with cheating far outweigh the perceived benefits. Academic dishonesty includes citing someone else's work as your own or sharing your answers with someone else. If you are unsure whether your planned action constitutes academic dishonesty, seek clarification from your instructor. Other information regarding your rights and responsibilities as a student is contained in the Purdue University Code of Conduct.

Campus Emergencies --the unusual event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. To get information about changes in this course, visit the course home page, contact me by email at abbottpc@purdue.edu, or call me at my office (494-4944274).
**Course Outline and Readings:**  * = essential readings

**I. Overview: Agriculture’s Role in the Macro economy**
*Recent Macro-economy history & Current events*


IMF World Economic Outlook Databases


*Macro data*
* Bureau of Economic Analysis, U.S. Dept. of Commerce, (Macro data)
  [http://www.bea.gov/index.htm](http://www.bea.gov/index.htm)

*Federal Reserve Economic Data* [http://research.stlouisfed.org/fred2/](http://research.stlouisfed.org/fred2/)

*Great Recession*


Implications for Agriculture


Trade Collapse
*OECD*, “Agriculture more resilient to global crisis than other sectors,” OECD, Paris, June 17, 2009. http://www.oecd.org/document/30/0,3343,en_2649_37401_43017950_1_1_1_1,00.html


Euro Crisis


High Food and Ag Commodity Prices


Commodity Booms
*Frankel, Jeffrey*, “The Effect of Monetary Policy on Real Commodity Prices,” Asset Prices and Monetary Policy, Editor: John Campbell, University of Chicago Press, Chicago, 2006


“When Commodity Prices Surge” Finance & Development December 2012.

http://www.ers.usda.gov/AmberWaves/February07/Features/WeakerDollar.htm

China and Asia


Globalization and the Macro Environment


*Daniel Yergin and Joseph Stanislaw, Commanding Heights: The Battle for the World Economy, PBS Video presentation, April, 2002,


**Crisis in Macroeconomic Theory?**


**Ag Linkages to Macroeconomics**

Agricultural Baseline Projections: Macroeconomic Assumptions

International Macroeconomic Data Set

Agricultural Exchange Rate Data Set


Purdue University Cooperative Extension Service, Food System 21 -- Gearing up for the New Millennium, Publication EC-710, November 1997.

Chapter 2 -- Macroeconomy by Deboer, Tyner and Taylor
Chapter 3 – International Trade by Abbott, Hertel, Masters, Paarlberg, Sanders and Tyner


Dorfman, J., “Rising Interest Rates Won’t Be Good for Commodity Prices, But It Won’t Be Too Bad Either.” *Farmdoc Daily* (5):230, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, December 11, 2015.

Ag Linkages: Reviews and History


Zobbee, Henrik and Philip Paarlberg, “The Shaky Foundation of Farm Policy in the United States—Flawed Analysis, Flawed Policy,” Purdue Ag Econ Staff Paper 03-01, January 2003


Exchange Rates


Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 7.0, Center for International Comparisons at the University of Pennsylvania (CICUP), May 2011. (Link broken)


*“China’s Exchange Rate Regime and its Effects on the U.S. Economy,”* John B. Taylor Under Secretary of Treasury for International Affairs Testimony before the Subcommittee on Domestic and International Monetary Policy, Trade, and Technology House Committee on Financial Services October 1, 2003.


*“China Loosens Hold on Currency Ahead of G20 Summit”* Bridges Weekly Trade News Digest 14(23), June 23, 2010


II. Open Economy Macroeconomics

Accounting

National Income Accounting

Balance of Payments and National Accounts
* Abel, Bernanke and Croushore, “Savings and Investment in the Open Economy,” Macroeconomics, Chapter 5.


Social Accounting Matrices
http://books.google.com/books?hl=en&lr=&id=eTADjmwzPLgC&oi=fnd&pg=PA94&dq=reinert+Holst&ots=eNCU1Kvw8V&sig=T9YplSc_QKkQiFLaIO7PRyCzn3M#v=onepage&q=reinert%20Holst&f=false


Analyses Based Largely on Accounting Principles
http://books.google.com/books?id=HJDzWicP45oC&printsec=frontcover&dq=Krugman&hl=en

*Macroeconomic Theory*

*Closed Economy Models: Review*


*Open Economy Linkages: Purchasing Power Parity, Interest Rate Parity*


*Policy in an Open Economy*


Policy Trilemma in Argentina and Europe – Currency Unions


Identifying Fixed Exchange Rate Regimes


Competing Macroeconomic Models


III. Evidence on Prices and Market Failures


**IV. Growth Theory and Dynamics**  
*Growth Theory and Growth Regressions*  
* Abel, Bernanke and Croushore, *Macroeconomics*, Ch. 6, “Long-run Economic Growth”


http://www.nber.org/papers/w7081


http://www.nber.org/papers/w9305


*Macroeconomic Dynamics*


*Exchange Rate Determination Models*


V. Macroeconomics and General Equilibrium

Macroeconomics in CGE structures


Closure


Dominique van der Mensbrugge, “Modeling the Impact of Trade Liberalization: A Structuralist Perspective?” GTAP 10th Annual Conference, Purdue University, West Lafayette, IN, June 8, 2007.

Dynamic Closure

Incorporating market imperfections and rigidities


Elana Ianchovichina, Robert McDougall and Thomas Hertel, “China in 2005 Revisited: The Implications of International Capital Mobility,” May 1999


VI. Payment Crises and Structural Adjustment from a Macroeconomic Perspective


VII. Agricultural Applications

Context: Agriculture’s Role in the Macroeconomy


Globalization and the Macro Environment


Exchange Rates


* Monetary Policy and Neutrality


Overshooting

Sayed H. Saghaian, Michael R. Reed, and Mary A. Marchant, “Monetary Impacts and Overshooting of Agricultural Prices in an Open Economy,” Amer. J. Agr. Econ. 84(1) (February 2002): 90–103.

Current Models, Forecasting and Projections


Macroeconomics Syntheses


Growth

Poverty

Thomas Hertel and Jeffrey Reimer, “Predicting the Poverty Impacts of Trade Reform”, *J. Int. Trade & Economic Development* Vol. 14, No. 4, 377 – 405, December 2005


Winters, L. Alan; McCulloch, Neil; McKay, Andrew, “Trade Liberalization and Poverty: The Evidence So Far” *Journal of Economic Literature*, XLII (March 2004), pp. 72-115(44)

Evidence on Market Imperfections


Structuralist Macroeconomics


Food Policy in Structuralist Models


*Foreign Exchange Constraints*


*CGE Modifications*


Aziz Elbehri and Thomas W. Hertel, “A Comparative Analysis of the EU-Morocco FTA vs. Multilateral Liberalization” GTAP Working Paper No. 31, Global Trade Analysis Project, Purdue University, West Lafayette, IN, February 15, 2004

https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=1643