Econ 3600 Section 1,2: International Trade
Fall 2018
MW 8:45-10:00 Calhoun 218
MW 2:10-3:25 Furman 132

"For every complex problem there is an answer that is clear, simple, and wrong."

H.L.Mencken, the Bard of Baltimore.

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Office Hours: M 10:15-11:15, and by appointment. I occassionally have other professional obligations that arise, e.g., committee meetings, that overlap with my scheduled office hour. I will try to alert everyone ahead of time when this occurs. If I forget, please email me and we will arrange another appointment time. Also, when you pass by Calhoun 116C and see my door open, you should feel free to stop if you have things to discuss. If I am busy, I'll tell you, but usually if my door is open I am probably chatting or gossiping ("sto chiacchierando" for all of you fellow lovers of Italian) and will be glad to stop to help a student.

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Office hours: Tu 10-11, Wed 4-5.

1 About the Instructors

I am Robert Driskill. I have taught international economics since 1977 at four different universities: The Ohio State University, University of California at Davis, Yale University, and Vanderbilt University. I earned my undergraduate degree in economics at Michigan State University in 1973 and my Ph.D. at Johns Hopkins University in 1978. My CV and other professional and (some) non-professional information about me can be found on my web page:

https://my.vanderbilt.edu/robertdriskill/contact/

I will occasionally miss class due to participation in conferences or due to other professional obligations.

Frank Ciarliero is an advanced PhD student from Sydney, Australia. He completed his undergraduate economics degree at the University of New South Wales, where he was TA in International Economics for two semesters. Frank

has been the TA for this course in the past, and has been the instructor of record for his own Intermediate Macroeconomics course; in many ways, he is as much a co-instructor as a TA.

2 Prerequisites

The prerequisite for Econ 3600 is Econ 3010 (Int. Micro). You should not enroll in 3600 without having taken and passed 3010. And a word of warning: if you did not like Intermediate Micro, and if you do not like equations and graphs, you will probably not like this course as it is taught by me.

3 Texts

Campus Copy sells a manuscript that I am writing with Professor Crucini. Professor Crucini and I decided it wasn't fair to subject Vanderbilt students to the textbooks that aim for a less-capable group of students, so we are writing our own.

The advantages: it is relatively cheap, and it is designed for Vanderbilt students. The disadvantages are that it still a manuscript and has typos, editing remarks interspersed in the text, and is slightly dated in some of its examples.

We will refer to this manuscript as "CD," as in "readings for Monday: CD pp. 1-37."

4 Course Objectives and (my) teaching philosophy

Different people have different objectives for this course. You, the student, may have particular objectives. Your parents may have objectives for you (that may differ from your own). My fellow economists may have expectations about what a student of international trade should know. As for me, as your instructor, my overarching objectives for this course are to have students *understand* the perspective of the economics profession on the challenges and opportunities that arise for sovereign nations from their participation in the global economy.

It may help to have in our minds a picture of what we mean by understanding. John Holt has an excellent description:

> "I feel I understand something if I can do some, at least, of the following: (1) state it in my own words; (2) give examples of it; (3) recognize it in various guises and circumstances; (4) see connections between it and other facts or ideas; (5) make use of it in various ways; (6) foresee some of its consequences; (7) state its opposite or converse. This list is only a beginning ; but it may help us in the future to find out what our students really know as

> opposed to what they can give the appearance of knowing, their real learning as opposed to their apparent learning."

Holt, John. *How Children Fail* (Kindle Locations 1713-1717). Unknown. Kindle Edition.

To develop understanding requires students to develop mastery of the major paradigms used by economists to organize thought about economic relationships involving economic entities located in different sovereign nations. To develop (and exhibit) mastery, the time-tested technique in economics is to have students work problems. We have you do this. But we will make sure you can explain how you solved problems, and explain the point of each exercise.

I also aim to enhance your ability to think critically about non-academic writings and presentations about international economic issues. To think critically means to use cohesive and logical reasoning patterns that lead to careful and deliberate decisions of whether to accept, reject, or suspend judgment about the issues in question. In brief, I aim to enhance your ability to use and evaluate *arguments*.

Analyzing arguments ("the giving of reasons," "one or more statements that are used to provide support for a conclusion") means evaluating their assumptions and premises and evaluating the logical steps taken to link them to a conclusion. To enhance your abilities in this dimension, we both *model* how economists create arguments, and ask you to create some, especially in terms of your group project (see below).

This course also aims to reinforce and deepen understanding of basic economic principles. The study of economics is sometimes thought of as progress up a spiral circular staircase. At a few compass headings on the circle within which sits the staircase, one finds those few key principles that inform economic thinking: opportunity cost, the distinction between "real" and nominal prices and quantities, the importance of incentives in models of economic behavior, a focus on individual behavior as the foundation for understanding the behavior of more complex entities such as firms, or societies, and a few more, depending on each economist's preferences, e.g., "thinking at the margin." But at each of those compass headings, at different levels of the staircase a student learns new applications that also serve to deepen understanding (see points (2) through (5) in Holt's above list).

5 Class Policies

5.1 Attendance

I view learning as a cooperative venture, and believe students have responsibilities to the class. Students discharge these responsibilities by asking questions, adding their own perspective to discussions, and by being attentive and not disruptive in class. Sleeping, surfing the net, reading your E-mail, or text messaging is disruptive.

In one sense, attendance is not mandatory–we're not in high school–but I have organized the class as best I can to make it difficult to do well without joining in the classroom experience. And see this from the Undergraduate Catalogue:

> Students are expected to attend all scheduled meetings of classes in which they are enrolled; they have an obligation to contribute to the academic performance of all students by full participation in the work of each class. At the beginning of the semester, instructors explain the policy regarding absences in each of their classes, and thereafter they report to the Office of the Dean of the College of Arts and Science the name of any student whose achievement in a course is being adversely affected by excessive absences. In such cases the dean, in consultation with the instructor, takes appropriate action, which may include dropping the student from the class; students dropped after the deadline for withdrawal (see Period for Withdrawal) receive the grade F. Class attendance may be specified as a factor in determining the final grade in a course, and it cannot fail to influence the grade even when it is not considered explicitly.

In particular, we will spend some class time working in groups. This work will comprise a portion of your grade. If you cannot be a part of your group on a regular basis, you will be dropped from group work, and will receive zero points for this part of your grade.

Furthermore, part of your grade depends on a group project. If you do not attend regularly, I will not allow you to be part of a group: it would be unfair to the group to be saddled with an unreliable member. Hence, you will receive zero points for this part of your grade as well. And I view the classroom as a group project itself, and will make grading adjustments to the grade for group work accordingly.

What constitutes regular attendance? My perspective on this concept is much like the perspective of Justice Potter Stewart on pornography: he couldn't define it, but he knew it when he saw it. This is to say that I know that people will get sick, have relatives die, and have job interviews. But, as James Bond noted, a few episodes might be happenstance, a few more might be coincidence, but there is a certain point at which we can be sure this is enemy action. To avoid having your lack of attendance viewed by me as either strategic or simple laziness rather than necessary and unavoidable, make sure you communicate with me about your individual circumstances.

Of course, if you must miss class because you are representing Vanderbilt in some activity such as a sports team, or the debate team, or any other endeavor that you the student and I the instructor agree represents the University, this is acceptable and we will work with you to make sure you can succeed in this class.

Finally, I write recommendation letters for many of my good students. I expect good students to read a good national or international newspaper and

to initiate and participate in discussions based on current events found in these newspapers. If you are not in class, you can't participate. If you don't participate, you're not the type of student for whom I feel comfortable writing recommendation letters.

5.2 Watch Synchronization

We will synchronize our watches the first day. After that, latecomers to class will get to atone for their irresponsibility by being afforded special opportunities for classroom participation.

5.3 Electronic gadgets

Turn them off before class. If you take notes on your laptop, feel free to do so, but, as noted, refrain from distracting fellow students by checking E-mail, shopping online, and so forth and so on.

6 What to Expect

To get the most benefit from this course, the average student should expect to spend between six (6) and ten (10) hours per week outside the classroom. Vanderbilt students are bright and well prepared, and this course is designed to challenge them. Math, **especially algebra** and including calculus, will be used heavily at times. Individual students may be called upon to answer questions and present material at the board.

Because one of my objectives is to deepen and reinforce your understanding of basic economic principles, I occasionally digress from the planned syllabus when what I think are interesting opportunities arise that provide a springboard for discussion of important economic ideas. As a consequence, I may not cover the entire syllabus. If you are the type of student who feels cheated if the instructor does not cover the entire syllabus, this class may not be for you.

There are two more noteworthy aspects of this course. First, during the first part of the course, some class time will be devoted to students working in groups on problems and assignments. Part of this work will include having a representative of the group (chosen by me) present the group's solution. The incentive here is to make sure that all group members have an incentive to make sure everyone in the group is an active participant.

Second, a significant portion of your grade will depend on a group project. We will form groups and pick at least tentative topics at around the end of one month of class. By then, people will have had a chance to work with a variety of people, thus allowing them to form some preferences about which class members they may or may not want to be part of their project group. To the extent I can, I will honor these preferences.

7 Grading Procedure

There are four grade components.

7.1 Group project: 25% (250 points)

You will work as a member of a group (2-5 members, depending on class size) on a policy-related project. Your group will have some (but not complete) flexibility in choosing a topic and a format. The task will be to present an analysis of a trade policy topic. Part of the job is choosing a hypothetical audience that is not composed of only economists. This forces you to convey information that you cannot assume is known as would be the case if you simply wrote a report for, say, me. For example, you might imagine you are writing a briefing paper for a boss, such as Congressperson Cooper from Nashville, who needs to be prepared to face his constituents in a town meeting at which he must explain his vote in favor of some trade agreement. Or perhaps your boss is a politician preparing to present a speech on what if anything Congress should do to either support or curtail the Trump Administrations myriad trade proposals.

One feature of this assignment is that your choice of audience should be predicated on the topic at hand. For example, many years ago, Congressman Cooper had been criticized by a Mid-Tennessee union for his vote supporting CAFTA (Central American Free Trade Agreement). This would have made your job of briefing him more interesting because you would have known he would have faced a hostile audience.

As in the preceding example of preparing Congressman Cooper for a meeting, you are free to imagine yourself in the past. You might, for example, use the debate that surrounded NAFTA as a policy around which to organize your project. Or you might organize your project around the Smoot-Hawley tariff.

The format for the presentation of this analysis can be something like a briefing for a boss, or a newspaper series on a trade policy issue of importance to the newspaper's readers, or an article for a serious periodical such as *Foreign Affairs* or *Atlantic Monthly*.

Your group will give a short presentation of its project towards the end of the semester. The grade for the project will depend upon, among other things, how well course concepts are related to the policy issue, how well relevant data is brought to bear, and how clear and concise are the written and oral parts. We will talk more in class about potential topics and about the grading criterion for these projects.

7.2 Assignments: 20% (200 points)

There will be a series of assignments during the semester, some in-class and some take-home. Evaluation of some of these assignments may take the form of an oral examination (in front of the class) on the work.

7.3 In-class exams: 45% (150 points and 300 points)

There will be two exams (worth 15% and 30% of your total grade, respectively). The first will be around the last week of September and the second will be around the first or second week of November. The exact dates will depend on progress through material in class, but will be announced at least a week in advance.

7.4 Final report: 10% (100 points)

You will turn in a short critique of all of the presentations other than your own.

7.5 Procedure

We calculate total points for all the sub-categories, e.g., a student may have gotten 208 out of thepossible 250 points for the group project, 200 out of 200 possible points for homework assignments, 400 out of 450 possible points for the two exams, and 80 out of the possible 100 points for the final report. Out of 1000 possible points, this student will have earned 900 total points. We then look at the grade distribution over all students, and look for "break points" to help us make decisions on "A," "A-," "B," and so forth.

8 Key concepts

8.1 Miller Time

This concept is based on an old beer commercial. The essence of the commercial is described as follows:

> It's Miller Time
>
> During much of the 1950s and '60s, advertising agencies that handled beer accounts were saddled with a unique dilemma. The average beer drinker (the guy who was unflatteringly dubbed "Joe Six-Pack" by beer marketers), perceived little difference between one domestic brand of beer and another. ...
>
> Television, of course, would be Miller's primary means of assault. TV spots for Miller High Life bore a strikingly similar look and feel to Philip Morris' venerable Marlboro Man commercials. The new ads invariably depicted tough and rugged he-men drinking Miller Beer– not because they enjoyed its delicate balance of flavors, not because they fancied the easy-to-open bottle, but because **they worked hard all day and, dammit, now it was Miller Time.**
>
> The "you earned it" theme was a complete departure from the tired old claims of two decades worth of beer commercials.

(excerpted from "Beer and Television: Perfectly Tuned In," by Carl H. Miller, in *All About Beer*, bold print mine, not his).

For an example:

http://www.youtube.com/watch?v=Vj-lYM5GCQg

or

http://www.youtube.com/watch?v=Vg7z4bg4zMA

The study of international economics provides you with opportunities to work hard as you learn and master some of the more challenging models you will encounter in undergraduate economic classes. Miller time occurs when the hardest part of this work is done and all that is left is to collect the payoff in terms of knowledge and understanding. Sadly, it does not mean that we as a class are going to share together a cold one.

8.2 "Joe Six-Pack"

See above. Also see Greg Mankiw's NYTimes article on March 16, 2008. The key paragraph:

> "No issue divides economists and mere Muggles more than the debate over globalization and international trade. Where the high priests of the dismal science see opportunity through the magic of the market's invisible hand, Joe Sixpack sees a threat to his livelihood."

http://www.nytimes.com/2008/03/16/business/16view.html?_r=2&adxnnl=1&oref=slogin&adxnnlx=121
74NKwB9+mjZFJXw1uG/CDw&oref=slogin

8.3 Sunday school versus worship service

In churches in the United States (especially Protestant Christian denominations), there are frequently two opportunities available: a worship service, during which the pastor does most of the work, and Sunday school, during which attendees are expected to join in and contribute. Both of course have their place. The big advantage of the worship service is that if you are so inclined you can wear your Homer Simpson goggles that have open eyeballs painted on them so that you can sleep while looking awake.

This is why we try to have "Sunday school" experiences interspersed with "worship."

9 Course outline (tentative)

No dates are "written in stone." I've built in time for catch-up in case we fall behind schedule. The readings listed for a particular day are for the topic that is to be taken up the next class.

Week 1: August 22

Class 1

Course organization; what to expect; Budget constraints.

Readings for Monday Aug. 27: CD 1-37 ("Challenges and opportunities ... , "The economist's perspective;" (estimate of two (2) to two-and-a-half ($2\frac{1}{2}$) hours); CD 75-85 (up to section 18.4.2; estimate one (1) hour).

Readings for Wednesday Aug. 29: CD 85-117, aka "GE Theory: a two-agent economy," from 18.4.2 to end (estimate three (3) to three-and-a-half ($3\frac{1}{2}$ hours).

Want or need a refresher on the math we use in this class? Read "Math and Calc Review" on Brightspace.

Want or need a refresher on economic models? Read CD 39-72, "The formal structure of economic models."

Week 2 : August 27-29

Class 2

Monday: Themes and questions; overview; economics as a "dense web of interrelated ideas;" economic models; budget constraints.

Class 3

Wednesday: Endowment Economy, aka "GE Theory: a two-agent economy.".

Readings for Mon. Sept. 3 and Wed. Sept. 5: CD 119-140.

Week 3: Sept. 3-5

Class 4

Monday: EE examples; Edgeworth Box, Walras' Law; group formation

Class 5

Wednesday: Arbitrage, pattern of trade.

Note: readings are for week of Sept 17-19

Readings for Monday Sept. 17: CD 141-150 ("Gains" from trade);

Readings for Wednesday Sept. 19: CD 151-159 ("Chapter 5: Introducing the basic trade instruments: tariffs and quotas").

Week 4: Sept. 10-12

Class 6

Monday: Review

Class 7

Quiz

Week 5: Sept. 17-19

Instruments of trade policy. gains from trade. Gains from trade; A taste of macro. Introducing production: the S and M model.

Week 6: Sept. 24-26

Class 8
More S and M

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Week 7: Oct. 1-Oct. 3

Reading: Imperfect competition and trade.

Week 8: Oct. 9-11

Imperfect competition and trade.
Reading: Trade Policy

Week 9: Oct. 16-18 (Fall Break Oct. 12-13)

Reading: Factors and trade

Week 10: Oct. 22-24

Readings: TBA

Week 11: Oct. 29-31
Week 12: Nov. 5-7
Exam #2 (Approximate date)

Catch-up, review, group preparation

Week 13: Nov. 12-14
Week 14: Nov. 17-25 Thanksgiving
Week 15: Nov. 26-28

Week 16: Dec. 3-5
Group Presentations
Monday, Dec. 10 5:00 PM: Final reports due

Annotated Outline

1. Introduction.

   (a) Challenges and opportunities.

      i. Challenges: Textile and apparel industries, steel.

      ii. Opportunities: users of steel, cotton growers, wine makers, country music, pharmaceuticals.

      iii. Given there are both challenges and opportunities, why have economists (by and large) argued that free trade is good for nation as a whole? That is, what do they mean by "gains from trade?"

(b) Other challenges and opportunities: values (human rights, environment, labor standards), national security.

(c) The purview of international economics.

i. Economic interactions among economic entities (people, businesses, governments) that reside in different sovereign nations.

ii. Trade of two broad classifications:

A. Goods and services: "real" part of international economics.

B. Assets, especially money and financial assets: open–economy macro.

(d) A basic paradigm:

i. Proximate cause: in absence of trade, differences in prices for same or similar goods.

ii. Why different autarkic prices?

A. Tastes ("tea-drinking English" and "coffee-drinking French").

B. Resources, e.g., capital, labor, natural resources.

C. Technology

D. Policies

E. Institutions.

2. The economist's perspective.

(a) Formal models.

(b) We provide an overview of the key features of the economist's perspective on economic issues.

i. The distinctions between macro and micro.

A. Nominal and relative prices.

B. The "neoclassical paradigm.

C. Dynamics.

D. Pioneering spirit.

ii. Parsimonious model of human behavior.

A. Rationality and relentless pursuit of self-interest.

B. Trading and substitution possibilities.

iii. Context of a "commercial society" informs economists' views on policy.

3. The structure of economic models.

(a) The value of models: the Monk Problem.

(b) Components of models.

i. Variables: definition, examples, distinction between exogenous and endogenous.

ii. Structural equations: expressing as systematic relationships, i.e., as functions, those logical interrelationships among variables that represent the a priori and theoretical economic knowledge assumed relevant for the issue at hand. These functions can be described by use of functional notation, of tables, or of graphs.

iii. Curve-shifting as an escape from flatland.

(c) Solving models.

i. The canonical question: what is the relationship between exogenous and endogenous variables? By having this as the canonical question that we ask of models, we both answer the policy-relevant question we usually ask of our models, and we avoid the trap of confusing correlation with causality.

ii. Reduced form: a system of equations that represents a solution.

iii. Curve-shifting as a representation of a solution.

iv. Example: a removal of a sugar subsidy by the EU.

v. Evaluation of models.

A. What makes a "good" model?

B. Unanswered questions and the value of general equilibrium models for international trade issues.

4. The endowment economy (pp 75-117), aka "GE Theory: a two-agent economy."

(a) Overview (a discussion of the "two-agent economy" chapter and the "trade as arbitrage" chapter which links which links two (2) two-agent economies via arbitrage.) The POW camp/Halloween endowment model, based loosely on a real-world experience, assumes identical endowments but different tastes, both within and across "countries." The use of quotations signals that our examples are not, strictly speaking, countries, but are useful metaphors for actual countries. The stark, simple structure of the model focuses attention on how trade can arise from different tastes (and how economists model the concept of different tastes), how trade between two previously autarkic camps can lead to both winners and losers, and how such trade creates sufficient gains that the winners could compensate the losers and still be as well or better off as under autarky. The endowment model provides an excellent way of illustrating existence of such a compensation scheme. The basic building blocks of this model are specifications of preferences and budget constraints, descriptions of how individuals' optimal choices of commodity bundles depend on these components, and descriptions of how prices and quantities consumed by each individual are determined by the market equilibrium condition. We proceed by first solving for the **autarkic equilibrium**, and then introduce the concept of gains from trades for the

two individuals in this economy. The next chapter then shows how **arbitrage** links two separate economies. We then introduce the concept of "gains from trade" for an economy as a whole. The quotation marks in the preceding sentence are there in part to signify coinage: as economists tend to use the term, it means something much more narrow than what non-economists might think.

i. Budget constraints. We introduce the concept of "real income" and show how it depends on relative prices.

ii. Preferences. To develop this model, we review how economists model an individual's preferences or, in equivalent language, an individual's tastes. We emphasize that utility functions can represent preferences, but only provide ordinal rankings of bundles of commodities. This is especially important in international economics because it implies that economists (as economists) cannot measure an individual's satisfaction in any way that would allow interpersonal comparisons of utility. We illustrate with parametric examples what economists mean when they say people have different tastes.

iii. Solving the sub-model of individual consumer behavior. We describe how individuals are assumed to choose optimal bundles of commodities for given endowments, preferences, and relative prices, i.e., describing how we derive individual demand curves, and how their ordinal well-being is associated with such outcomes. That is, we describe the systematic relationship between each endogenous variable and the exogenous factors and variables, namely tastes, endowments, and relative prices.

iv. Equilibrium.

A. Modeling a market.

B. We show how to solve for the equilibrium price in an autarkic economy, and how this price can be used to determine the equilibrium quantities consumed by each individual.

(b) Edgeworth Box.

i. This expansion introduces a diagrammatic tool that will be useful in other models and helps build an ability to use diagrams to analyze models.

ii. The expansion self-consciously models how economists *generalize* their models to incorporate less restrictive assumptions, e.g. expanding the model to one with different endowments.

5. Arbitrage: linking two autarkic economies. We show how profit-maximizing arbitrageurs link two geographically distinct economies by "buying cheap" in the home country, transporting, and then "selling high" in the foreign country.

(a) Excess demand and excess supply functions. These economize on information and allow us to diagrammatically represent joint trading equilibrium in the two individual country's markets.

(b) Trade costs: we show how arbitrageurs' profit-maximizing behavior depends on trade costs.

i. This both introduces realism and sets the table for introduction of tariffs, which can be analyzed with the same tools.

ii. We introduce non-traded goods, and a rudimentary analysis of the gravity equation.

(c) Special cases:

i. The limiting case of zero transport costs. For later topics, assuming zero transport costs does not influence the key lessons to be learned, and greatly simplifies exposition and analysis.

ii. The limiting case of a "small" country. This again sets the table for analysis of many topics most easily explained with the simplification of perfectly elastic excess demand or excess supply functions, which allows us to take foreign prices as exogenous.

6. "Gains" from trade.

(a) We show how arbitrage can easily create "winners" and "losers" in each country.

(b) We show how a feasible redistribution of endowments could leave everybody in a country better off under free trade than under autarky, i.e., we show how a change from autarky to free trade satisfies the Hicks-Kaldor Compensation Criterion. The endowment economy provides a relatively transparent graphical explanation of how this could happen.

(c) We introduce ideas about how satisfaction of the Hicks-Kaldor Compensation Criterion can inform thinking about whether a policy of free trade is desireable or not.

7. Introducing trade policy instruments: tariffs and quotas.

(a) Analytically, the ground has been prepared by our analysis of arbitrage with transport costs.

(b) Optimal tariffs:

i. Not possible for the "small" economy.

ii. For large-country case, we show via example that an optimal tariff exists.

iii. We then analyze how two large countries can end up in a prisoners' dilemma equilibrium if they act strategically and engage in a tariff war.

8. Introducing production: the specific-and-mobile-factors model (aka the S and M model).

   (a) This model provides the basis for understanding the usual meaning of comparative advantage and for further understanding the distributive effects of trade. It reinforces an understanding of the effects of tariffs and quotas. It also provides an excellent method of making clear why economists do not think of trade policies as "creating" and "destroying" jobs, but rather as shifting jobs from one sector to another.

   (b) Gains from trade again: how substitution possibilities in production increase the possibilities of gains from trade.

   (c) Introduction to political economy of trade. Because this model makes clear that there are identifiable winners and losers based on ownership of factors specific to a particular industry, it lends itself to an interpretation of both historical and current trade issues in terms of **concentrated** interest groups that lobby for protection and **diffuse** stakeholders that don't lobby for free trade.

   (d) Ricardo as a special case. The Ricardian model as usually taught can be viewed as a special case. What's usually difficult for students in the Ricardian model is the perfectly elastic labor demand schedules that are implications of linear technologies. Viewing such schedules as a limiting case is less confusing for many students.

   (e) Why the emphasis on this model as opposed to H-O-S? Most students are most familiar with production functions in which only one factor is variable, and can most easily understand the idea of diminishing marginal productivity and how this, along with profit-maximizing behavior, generates supply curves. The use of CRS production functions with two factors are just more difficult to exposit unless you are satisfied with "show and tell" handwaving. For those of you who missed out on the "show and tell" experience in grade school, we'll elaborate: A student would bring a toy from home, and stand in front of the class and tell them about their toy. The other students didn't get to play with the toy, or understand how it worked in any detail. Undergraduate treatments of H-O-S are frequently like this: they show you the bare bones of the model, and then tell you the results.

9. Some basic macro. Students find it hard to relate the micro models to the pervasive public discussions of such things as trade deficits and "the undervalued Renmimbi." This section is designed in part to help readers understand the connections. We introduce this at this point because the necessary micro background is now in place to understand basic macro. This section doesn't rely on anything that follows with respect to real trade, and is not absolutely necessary for an understanding of the following

real trade models. Nonetheless, we think it enhances understanding of the "real" side, in part because knowing what something is also requires knowing what it isn't. Furthermore, the real/nominal dichotomy is one of the hardest concepts for students: their everyday experience with nominal prices and the use of money for exchange makes it difficult for them to understand how economists have partitioned their analyses into "real" and "monetary." Introducing some basics early on helps reinforce the distinctions and help them identify what problems are fruitfully tackled as "real" and which ones as "nominal."

(a) Intertemporal considerations. One frequent point of disconnect between the classroom and what is "in the news" is the ubiquitous appearance of articles and commentary on trade and current account deficits, but the assumption of balanced trade in the basic textbook model. This chapter helps remove this disconnect by providing a bridge between the static trade models, in which trade and current account balances are always zero, and the always-in-the-news concerns about non-zero balances. We first derive national intertemporal budget constraints that show the link between the current account and the change in net foreign assets. We then use this to show that the present discounted value of exports (plus inherited net foreign assets) equals the present discounted value of imports. This allows us to argue that a reinterpretation of our static models as models of an economy over its "lifetime" keeps intact the basic results about patterns of trade, gains from trade, and the key result that "exports pay for imports." This last point is especially important because it implies that under reasonable assumptions, import restrictions that save jobs in import-competing industries also cost jobs in export sectors. We think one of the important tasks of teaching international economics is to emphasize the less obvious but necessarily true implications of any particular trade policy.

    We also introduce the workhorse model of intertemporal macro, the two-period endowment economy model. Because of the careful development of the coffee/tea endowment economy model,we can proceed relatively quickly by exploiting the isomorphism of trade between coffee and tea to trade of "goods today" for "goods tomorrow."

(b) Money. We introduce the rudiments of money demand and money supply, emphasizing the distinction between the price level and the nominal exchange rate, which are most fruitfully thought of as monetary phenomenon, and relative prices and the real exchange rate, which are not monetary phenomenon.

(c) Exchange rates in the long run.

10. The H-O-S model. This can be thought of as the "long run" of the specific and mobile factors model. We develop "from the ground up" the features

of constant returns to technology that are crucial for understanding this model. We conclude with a thorough review of the empirical evidence that has led to adjustments in how economists now think of the predictions of this model.

11. Imperfect competition and trade.

12. Policy. Note that we already have analyzed tariffs and quotas

    (a) An overview of how economists think about policy. We plan to provide this because trade policy can profitably be viewed as a subset of generic economic policy. This helps emphasize that there are no "theorems" from economic analysis that tell us the "right" policy, but rather that economic analysis can help us understand the trade-offs involved in any policy choice.

    (b) History and institutions. Here we provide a narrative of trade policy history and a discussion of the institutions that have arisen.

    (c) Specific issues.

    (d) Dumping; Dumping is a charge leveled more and more frequently by firms and industries in the United States. Along with being an important policy issue, it affords an interesting look at the asymmetries in governmental goals for domestic policies vis a vis governmental goals for international trade policies.

        i. Analogy to predatory pricing.

        ii. Description of the policy process.

        iii. A digression on fairness. Political economy of trade.

13. The distorted economy.

    (a) A general proposition in economic theory goes under the rubric of "the theorem of the second best." Roughly, it says that if an economy is characterized by more than one deviation from the assumptions of perfect competition, e.g., the economy has a pollution externality *and* a tariff, then it is **not** necessarily a potential Pareto improvement to "fix" only one of the distortions in the economy. Put another way, in an economy that is characterized by a "distortion", imposition of a tariff (or some other trade impediment) *may* produce a potential pareto improvement. That is, the theoretical presumption of free trade as a potential pareto improvement over a policy of trade impediments such as tariffs, quotas, and the like, does not hold when the assumptions of perfect competition are violated. On the face of it, this result would seem to render enthusiasm for free trade a purely theoretical exercise about mythical economies, because casual observation suggests every economy has many distortions, e.g., pollution externalities, monopolies, oligopolies, etc..

(b) One response from trade economists has emphasized that using a trade policy, e.g., imposing a tariff, to correct (in the usual sense of satisfying the compensation criterion) a distortion such as a pollution externality, is not as efficacious (in the usual sense of satisfying the compensation criterion) as would be a policy of imposing a tax on the pollution source itself. This idea that the first-best policy is the one that directly targets the market failure is known as the **specificity principle**.

(c) A counter-response to an appeal for free trade policy based on the specificity principle is to note that, sure, *if* it were feasible to use such "first-best" policies, then free trade would be the best policy. In practice,though, we don't know if such first-best policies are available (vested political interests may make them unlikely to be implemented). Hence, appeal to this principle as an argument in favor of free trade policies is akin to assuming beggars can ride horses ("If wishes were horses, beggars would ride, If turnips were watches, I would wear one by my side, And if "ifs" and "ands" were pots and pans, There'd be no work for tinkers!")

(d) Another response is to note that many externalities carry within them the seeds of their own demise, because *incentives* exist for profit-maximizing entrepreneurs to "internalize the externality." We will develop this line of thought through an extended example.

14. Factors of production and trade.

15. Topics.

10 More from the Bard of Baltimore

Every normal man must be tempted, at times, to spit on his hands, hoist the black flag, and begin slitting throats.

On some great and glorious day the plain folks of the land will reach their heart's desire at last, and the White House will be adorned by a downright moron.