
INTERNATIONALIZATION OF THE ECONOMICS MAJOR: A "HOW TO" WITH CASE STUDIES

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ABSTRACT

Economics, as a discipline, has grown substantially from its early roots of political economy and philosophy. Not only has the discipline itself evolved over time, but nearly everything about it has changed, from the topics we examine, the tools we use, and the way it is taught. Economics, however, has always had a basis in international analysis, though while once presumed goal of that analysis was national enrichment it is now more likely to be global production enhancement, leading to rising standards of living everywhere. This paper analyzes the experience of one University Department of Economics as it makes its way toward internationalization. This article demonstrates how fairly simple changes in even principles courses (the incorporation of case studies) has markedly changed the orientation of our discipline and helped our become a leading force for internationalization at our University. In this world that seems to be ever-decreasing in size, offering our students a strong foundation in economic principles by way of group projects that incorporate international aspects aids in their understanding of the truly world-wide applications of these ideas. We offer, then, not only the experiences of one university but a 'road map' that others can follow toward the goal of internationalization.

INTRODUCTION

As is the case at most, if not all, Economics Departments, the University of Wisconsin – Oshkosh (UWO) has long had coursework in International Economics.

Our course, however, was a single semester course that incorporated both international trade and international finance. This was due primarily to the fact that the University has a College of Business that offers coursework in international and domestic finance, distinct from coursework offered by the department of economics. Having this single course in international area studies served as our only international offering for many years. Even though it was very popular among students, no additional coursework in the area was offered until after the turn of the millennium.

The internationalization of the university in general and our department in specific has taken several different paths. One important change has been in the way we teach even non-‘international’ courses, along with a proliferation of international classroom offerings, a new International Emphasis within the major itself, faculty led study tours, a partnership with a foreign university, a dramatic increase in the internationalization of faculty experiences, additional international hires, and an on-going faculty exchange program. Discussion of each of these areas, as well as the phenomenal growth in the popularity of the economics major, follows.

THE UNIVERSITY AND DEPARTMENT

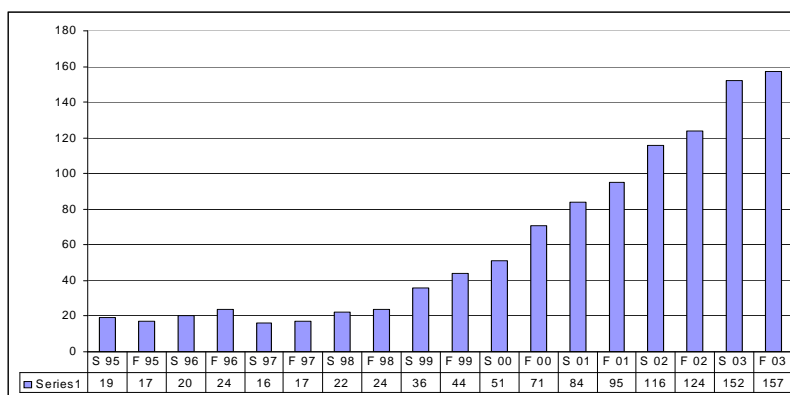
The University of Wisconsin – Oshkosh is a mid sized, comprehensive university located in the upper Midwest. We have approximately 10,000 undergraduates and 2,000 graduate students, organized into four colleges (Letters & Sciences, Business, Nursing, and Education and Human Services). The department of economics is currently housed in the College of Business, which has approximately 1,700 undergraduates, 640 graduate students and 50 faculty members. The department of economics faculty at UWO consists of 10 full time equivalent members, all of whom are either tenured or on tenure track, with an additional course or two of adjunct time per year, depending upon funding and need. Of these ten individuals, we have a good balance by age and gender (four full professors, four associate professors, and two assistant professors comprised of seven males and 3 females). All have PhDs.

There have also been changes in the faculty since 1994. In 1994 we have had six retirements, their replacements bringing in new faculty members with international experience.¹ The internationalization of the major began with these faculty changes and has continued unabated since that time, culminating in the

creation of a new emphasis in the major. These changes are further discussed in the following section.

The economics department has grown markedly in the last dozen years. Chart 1 shows this dramatic growth from 19 declared economics majors in the Spring of 1995 to 162 majors in the Fall of 2006. Before 1994, the College of Business required all majors, in any sub-field, to complete the entire economics core sequence, once that requirement was dropped we experienced a reduction in majors.²

Chart 1
Number of Economics Majors¹ at University of Wisconsin – Oshkosh,
Spring 1995-Fall 2003



¹ Data from major listings collected by the department.

INTERNATIONALIZATION OF THE FACULTY

The department has long had a strongly international background. Two of our faculty members have formal training in the discipline of International Economics and/or Economic Development, not unlike many faculties of our size. Out of ten faculty members six have extensive international experiences, and three are foreign born. Having foreign born faculty members hardly makes UWO unique, indeed in this we would believe that very many Universities have the same experience. One of those formally trained international economists is from Pakistan, coming to us in 1982 and another is from Belarus, arriving in 2001.

What has set us apart is the development of our international expertise with this faculty composition as our base. Another colleague, hired to guide the Center for Economic Education (affiliated with the National Council of Economic Education, or NCEE) began efforts to spread economic education within the state but eventually became one of the national leaders in the effort to aid post-Soviet Block countries with their conversion to the free market system. His efforts in this regard, many trips to former Soviet countries, leading training seminars for in-country instructors of western economics, leading study tours to examine the economic education in these regions for US instructors of economics, and various other national and international level efforts to enhance the adoption of the free market system led to many personnel contacts within these areas. Indeed, one of these contacts, a university instructor from Belarus in both Marxian and Comparative Economics (meaning, comparison of the free market economy with the command economy) has since become a very valued colleague at UWO, coming to us as a visiting lecturer in 2001 and joining the faculty on a permanent basis the following year.

These faculty members served as the core of the international coursework at UWO and became the driving force behind further internationalization of our program. Other experiences of our faculty sharpened this international focus. Two of the authors of this paper participated in a NCEE sponsored study tour. One of those trips was to Ukraine in 2001, enhancing classroom presentations with first hand knowledge of this area of the world and the economic developments there. Another faculty member was hired in the field of economic history with extensive personal travel experience, including teaching in Sudan and a semester-long Fulbright to Estonia. Another author of this paper became involved with a charitable program through a local chapter of Rotary International in Peru. Through those contacts, he developed a connection with the Universidad del Pacifico in Lima, which has expanded into many opportunities for both our faculty and students alike.

UWO has sponsored several faculty exchanges with Universidad del Pacifico. We have had several of their faculty members visit our campus for both teaching and research opportunities. Our colleague who specializes in natural resource economics traveled to Lima to present work on forestry conservation at the behest of our Lima contacts. Furthermore, we also have a history of faculty exchange programs with other universities, world wide – with visitors from Japan, Afganistan, Uzbekikstan, Russia, Georgia, and other international locations.

INTERNATIONALIZATION OF THE CURRICULUM

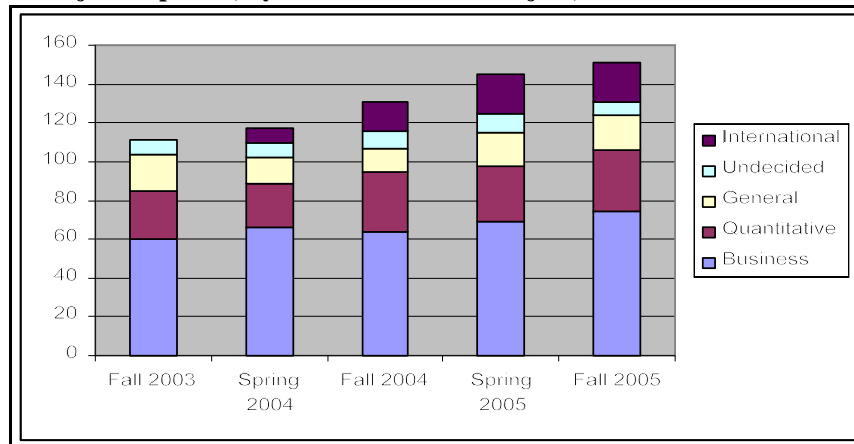
The internationalization of our faculty has led to numerous changes of our curriculum, both inside, and outside, the classroom. Some of the changes are subtle – instructor interest guiding topic choice and the relative stress placed on international and development topics, for instance. Several examples of this type of change can be seen in our introductory courses: Those faculty members with experiences with the emerging free market within the post Soviet Block nations, for instance, tend to emphasize the importance of free market principles, ownership rights, and international trade in the principles courses. Other changes have not been so incremental.

Students can choose to major in economics either in the College of Business or in the College of Letters and Science. In the College of Business, students must fulfill the general requirements of that college, including such things as the professional experience requirement, as well as the major requirements. In the College of Letters and Science, students may elect either the general economics major, which requires a second major or minor from another field, or take an additional two courses (Econometrics or Introduction to Mathematical Economics and one elective) for the quantitative emphasis. In 2003, the department introduced an Emphasis in international economics. That course of study requires, over and above the core sequence and field dimension requirements, concentrated study in the area of international economics; we strongly encourage students interested in this emphasis to attend one of the study abroad programs offered by either our own university or any other qualified program. Chart 2 shows these requirements by emphasis.

Chart 3 shows the number of declared major in the department, by emphasis, in the College of Letters & Science from Fall 2003 to Fall 2005. It clearly demonstrates the growing popularity of both the department and the international emphasis, in particular. s 4 breaks down this information by percentage of total majors in each semester, making it easier to ascertain the increasing percentage of our majors that are in the international emphasis. To some extent, there is an attenuation in the percentage of our College of Business majors in favor of the international emphasis major in the College of Letters and Science.

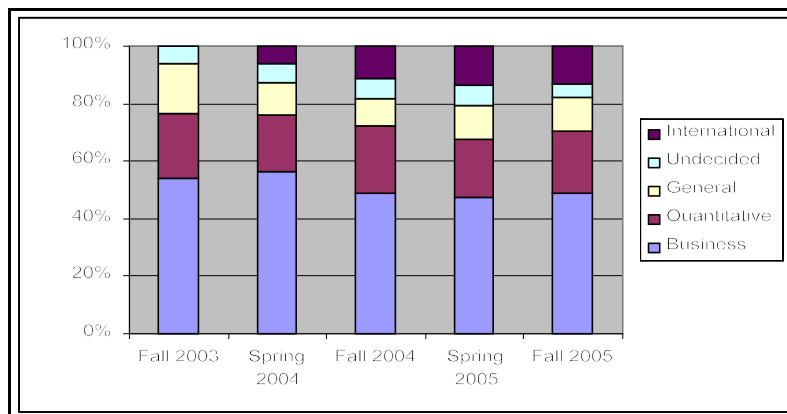
Chart 2 Coursework Requirements for the Economics Major by Major Type in Letters & Science			
	General	Quantitative	International
Core ¹	Same	Same	Same
Field Dimension	2 of International, Money & Banking, Public Sector, History of Economic Thought	Same as General	1 of Money & Banking, Public Sector, History of Economic Thought
Electives	3 courses	4 courses	3 courses
Special Requirements	Requires second major or minor in another field	Econometrics or Introduction to Mathematical Economics	International Economics plus 2 of International Capital Markets, Economic Development, Comparative Economic Systems, one of three study abroad courses from department study trips or up to 3 credits of approved study abroad experience
Total Credits	30 credits, plus second field	36 credits	36 credits
¹ The core requirements for the major include statistics, introductory and intermediate microeconomics and introductory and intermediate macroeconomics and a calculus mathematics requirement (either 2 courses of math for business analysis or 1 semester of calculus).			

Chart 3
Major Emphases, by Total Numbers of Majors,¹ Fall 2003 to Fall 2005



¹ Data taken from Office of Institutional Research, University of Wisconsin – Oshkosh.

Chart 4
Major Emphases, by Percentage of Total Majors, Fall 2003 to Fall 2005



Partially in support of the International Emphasis and partially prompted by faculty interest, a new course in international finance was approved in 2005. That course has been offered twice since that time with sufficient student enrollment to

earn it a permanent spot in the course rotation (once every other year, in rotation with Comparative Economic Systems). The course Economics of Lesser Developed Countries is offered every fall and these other two courses rotate so that one is offered each spring, students can complete the specialized requirements for the International Emphasis in two successive semesters.

One of the more unique, and potentially more pedagogically interesting, changes that the internationalization of the curriculum has engendered is the faculty exchange and class cooperation with our sister university in Peru. A pilot program matched intermediate microeconomics courses in the two universities. Through faculty exchange (3 weeks out of 14) and video conferencing, the two sections worked jointly on not only the regular course material but also on topics of joint concern in international topics. Since that time, we have included principles of economics in the cooperative coursework with Peru. Another instructor's principles of Microeconomics classes use student groups to develop cases with matched student groups at Universidad del Pacifico. Numerous web conferences are held by these groups as they develop their cases and make a final class presentation to the other students. We are currently examining relative student performance in these pilot classes and in traditional courses of this type to determine if there is additional learning value in this type of coursework.

INTERNATIONALIZING PRINCIPLES COURSES THROUGH COURSEWORK

One of the more innovative programs that we have begun to use is the case study approach in our principles courses that use international situations to demonstrate standard economic concepts. Students complete these case studies in a group project type scenario and assimilate both basic economics and the international implications of those concepts (included as an appendix here). We have used these cases with great success in our principles courses, but with little effort they could be adjusted for use in intermediate courses as well.

These cases are assigned along with the regular flow of coursework and demonstrate traditional economic theories. The appendix has eight cases designed around an introductory course. For instance, the first case deals with standard Supply and Demand concepts, but places them in an international setting. As can be seen below, each case is listed with its core concepts that students need to complete it successfully, a situational set up, and then one or more questions that apply

economics to that situation. The full casework package includes suggested answers and potential pedagogical methodologies, such as using them for group work, class presentations, etc.

The 'Going' Rate: Cheap Taxis

Concepts: Perfect Competition (Perfectly Elastic Demand Curve)

Situation: A taxi ride from downtown Pittsburgh to the international airport takes about 30 minutes and costs \$30. A taxi ride from downtown Lima, Peru, to the international airport takes about 40 minutes and costs \$4. The cost of gasoline, the principal variable cost of a taxi ride, in Pittsburgh is approximately \$2.85 per gallon; while gas costs approximately \$4.00 per gallon in Lima. The Pittsburgh taxi ride costs \$1 per minute and the Lima taxi costs 10 cents per minute.

Question: Assuming that the taxis travel at approximately the same speed, quality of service is similar (both trips are completed), etc. how can such a significantly lower price exist in the Lima taxi service when its largest variable cost is much higher than that in Pittsburgh?

Several of the cases have follow up questions that can be used as either a second assignment or as just a follow on question at the end of the initial assignment. In this first case, it is particularly useful to send the groups back to the 'drawing board' as it were, after they have seen/heard the level of detail and analysis provided by other student groups. The groups that felt they did not compare favorably with their comrades are then able to improve upon their performance by embellishing their work. The form of this additional information and question is as follows for the first case:

Additional Information: The Pittsburgh taxi industry is (probably) characterized by the existence of a city agency responsible for registering taxis and setting their rates. The Lima taxi industry also registers its taxis, but does not set taxi rates. However, the Lima taxi industry is not responsible for setting rates. Rates are negotiated each time a passenger enters a taxi. Experienced taxi riders quickly learn what the 'going rate' is for a particular distance. Furthermore, there are a large number of unregistered taxis that are openly operate without fear of retribution from the police or the registered taxi drivers

Taxi rates are so cheap in Lima that it seems they hardly cover their variable costs of gasoline and automobile maintenance. If a pedestrian raises a hand next to the street in downtown Lima, three or four taxis will immediately screech to a halt. If the driver of the taxi first in the line thinks the pedestrian is from out of town and insists on a high rate, then the pedestrian simply moves to the second taxi. This driver will realize what he just witnessed and he now has a passenger who expects to pay the going rate. This is a perfect example of perfect competition and the perfectly elastic demand curve for taxi rides.

Additional Question: How can the taxi rate in Lima remain so close to the cost of just of the gasoline and minimum necessary car maintenance cost?

The use of these cases has brought a depth of understanding to our principles students regarding the wide applicability of economic analysis that we feel had been previously lacking. Indeed, these students have gone on to demonstrate their broadened thinking in other courses to such an extent that professors in other courses have commented on that new set of abilities.

STUDY TOURS

The relationship with the Universidad del Pacifico has contributed much to the internationalization of the economics major. In January 2004 three of our faculty members traveled to Peru with a small number of students. One of the professors gave a lecture regarding natural resource economics. The rest of the trip was dedicated to planning a future study abroad trip, to be led by a number of our faculty on a rotating basis. The students were there to gauge the experience and make suggestions as to the scheduling and planning of that upcoming rip. The outcome of that trip was a study abroad tour to Peru that following summer. Since then, we have had so much interest in the trip that we now schedule two such study trips per year (one in January and the other in June), each lasting approximately 3 weeks with some 15-25 students and one or two faculty members. That trip offers a variety of courses, from introductory economics to an upper division course in the Economics of Lesser Developed Countries. A specialized course, Economics of Latin America, was approved in 2003 and is now offered during each trip.

July of 2001 saw the first economics study trip to Scotland. That trip comprised 15 students and studied the nexus between Philosophy and Economics,

as uniquely applicable to the area we visited (Edinburgh). That trip is now offered every other year and students take two courses, History of Economic Thought and a new course designed specifically for this trip (Economic and Social Development of Great Britain, approved 2004).

Our Belarussian faculty member spent two years as a visiting faculty member in Germany and is in the process of developing a study tour, to first take place in 2008 (and eventually be offered on a rotating basis with the Scotland trip). That trip will operate in coordination with an existing center for economic education, Sommerhochschule (run by Dr. Frank Neumann). A new course, Economics of European Integration and Growth, was approved in 2005 to be offered to students on that trip.

The student clientele for these trips is primarily economics and/or business majors. The College of Business has an international dimension requirement that is most easily fulfilled by a combination of on-campus coursework and an off campus study tour. Therefore, many business students elect to take our study tours. While many of the College of Business economics majors take our study tours for this reason, more than half of our International Emphasis Economics majors in the College of Letters and Sciences also go on these tours as they can substitute courses taken on these tours for the on-campus coursework required of the emphasis.

One of the additional effects of these tours, and push toward internationalization in general, is the direct personal impact it has on our students' lives and futures. Our university is located in the upper mid-west where most of our students have little worldly sophistication. Indeed, it is not unheard of for one of our students to have never traveled by air or been outside the state of Wisconsin. A case in point would be a particular student who had never been in a plane before becoming an economics major who has since gone on three international study tours and is now planning to attend graduate school in economics out of state, a far cry from his previous goals of returning to the community it which he was raised after obtaining a degree.

CONCLUSION

The University of Wisconsin – Oshkosh economics department has enjoyed surging popularity over the last decade with a nearly ten-fold increase in the number of majors, even though national trends have seen a decrease in economics majors. While not directly responsible for the early part of this increased popularity, we feel

that the increasing internationalization of the major within the past five years along with the broad faculty support of these initiatives has played a part in continuing this trend. Through several means, the internationalization of the economics major has played a major part in the increasing respect and popularity that we are now enjoying and feel that other departments can make use of at least some of our methods to enhance themselves as well.

ENDNOTES

- ¹ One of these retirements was not replaced, reducing our overall faculty FTE (full time equivalent) from 11 to 10 during this period.
- ² The department has, as its core requirements, two semester courses of introductory economics, two semesters of intermediate economics and a one semester statistics course. The College of Business dropped the requirement for the two semester courses of intermediate economics, while retaining the other three courses for their majors.

APPENDIX

Casework for 'Internationalizing' the Economics Curriculum

The following cases are designed for use in principles courses but can be enriched enough for intermediate courses with only small changes. We have found that these cases employ traditional material covered in most principles courses, but emphasize the international application of that material. These cases can be used as either individual homework or group work. For instance, students can be organized in groups and required to work on the cases outside of class time, turning in a single group 'answer' to each case to reduce the amount of instructor time required to oversee and grade these assignments. We have used them in a class sharing arrangement where two sections of the same course work on the same cases and take turns presenting their results to the other section (one group presenting to the other section for each case, with presenting groups drawn by lot for instance or one group presenting to their entire section in a sort of 'knowledge bowl' like final presentation). The amount of course credit allocated for casework can vary, of course, but we have found that students become interested enough in the subject matter that they end up devoting more time than the credit incentive would necessarily suggest.

Journal of Economics and Economic Education Research, Volume 9, Number 2, 2008

These cases can be used with any principles text, in any order. All costs and prices have been converted from foreign currency to US dollars to remove that additional layer of complexity that can deter students from the central issues of each case. Students should be directed toward reliable sources of economic information, such as the White House Briefing Room for US data and such sources as the CIA World Factbook, the US Department of State, Bureau of the Western Hemisphere, or STAT-USA Internet through the US Department of Commerce for foreign data. In cases 1, 3, 4, and 8, there are follow up questions that could either be assigned along with the original case or used as a second assignment.

Case 1: The ‘Going’ Rate: Cheap Taxis

Concepts: Perfect Competition (Perfectly Elastic Demand Curve)

Situation: A taxi ride from downtown Pittsburgh to the international airport takes about 30 minutes and costs \$30. A taxi ride from downtown Lima, Peru, to the international airport takes about 40 minutes and costs \$4. The cost of gasoline, the principal variable cost of a taxi ride, in Pittsburgh is approximately \$2.85 per gallon; while gas costs approximately \$4.00 per gallon in Lima. The Pittsburgh taxi ride costs \$1 per minute and the Lima taxi costs 10 cents per minute.

Question: Assuming that the taxis travel at approximately the same speed, quality of service is similar (both trips are completed), etc. how can such a significantly lower price exist in the Lima taxi service when its largest variable cost is much higher than that in Pittsburgh?

Answer: Make note of 1) the competitive environment in each city’s taxi industry, and 2) the cost of labor. (Demand differences? The taxi riders to the Lima International Airport are of an income level comparable to those at the Pittsburgh airport.)

Additional Information: The Pittsburgh taxi industry is (probably) characterized by the existence of a city agency responsible for registering taxis and setting their rates. The Lima taxi industry also registers its taxis, but does not set taxi rates. However, the Lima taxi industry is not responsible for setting rates. Rates are negotiated each time a passenger enters a taxi. Experienced taxi riders quickly learn what the ‘going rate’ is for a particular distance. Furthermore, there are a large number of unregistered taxis that operate quite openly, apparently without fear of retribution from the police or registered taxi drivers.

Taxi rates are so cheap in Lima that it seems they hardly cover their variable costs of gasoline and automobile maintenance. If a pedestrian raises a hand next to the street in downtown Lima, three or four taxis will immediately screech to a halt. If the driver of the taxi first in the line thinks the pedestrian is from out of town and insists on a high rate, then the pedestrian simply moves to the second taxi. This driver will realize what he just

witnessed and he now has a passenger who expects to pay the going rate. This is a perfect example of perfect competition and the perfectly elastic demand curve for taxi rides.

Additional Question: How can the taxi rate in Lima remain so close to the cost of just of the gasoline and minimum necessary car maintenance cost?

Answer: Most of these taxis are operated by their owner. Perhaps the easiest way to address this question is to treat the total cost as the sum of variable (gasoline, cost of drivers' time) and fixed costs (maintenance, for example). In this case the quality of many (most) Lima taxis is quite poor. Some taxis are in dire need of repair. It seems that the maintenance costs are not being paid. Furthermore, the opportunity cost of the driver's time and appear to be close to zero.

The official unemployment rate in Lima is approximately 10 percent, while the Pittsburgh rate is half of that percentage. The real unemployment rate in Lima is closer to 30 percent, or perhaps even higher. The opportunity cost of a taxi driver's time, then, is ridiculously low because they are unable to find another source of employment. The low level of taxi maintenance is best explained as an effort by the driver-owner to receive some monetary return for his time, by accumulating deferred maintenance.

Case 2: Getting Gas: Bloated Markets for Natural Gas?

Concepts: Marginal Thinking (Costs and Benefits), Externalities

Situation: The level of air pollution in Lima, Peru is very high. The pollution reflects the stagnant air over the city of Lima, which is located on the coast next to a very tall mountain. Its proximity to the equator further reduces the natural wind velocity. These natural conditions are compounded by the tens of thousands of poorly maintained internal combustion engines powering the vehicles on the city's streets.

The Camisea natural gas field was discovered in Peru in 1985. Twenty years later the gas is now reaching the city of Lima. It had been hoped that increased use of natural gas to power vehicle engines would reduce the amount of pollution in the city. Prospects for this substitution dim when the price of natural gas is equal to the price of gasoline, on an energy equivalent basis (cost per 1 million BTU's). The recent increases in gasoline prices have been followed by increases in natural gas prices. So, the incentive for Lima's car owners/taxi owners to modify their cars (a \$550 expense) to use natural gas has been reduced.

Another issue faced by drivers of natural gas-fueled cars is finding a vendor of natural gas to fill their cars' fuel tanks. The cost of replacing an in-ground gasoline tank with a new natural gas tank and pump is approximately \$70,000, a significant amount for a gasoline station owner.

Question: Outline the economic issues facing the owners of automobiles and gas stations. What policies, if any, would you recommend that the government of Peru use to encourage the widespread adoption of natural gas as a vehicle fuel?

Answer: A car owner should modify the car's engine from gasoline to natural gas capability if the marginal benefit from this modification is greater than the marginal cost. The marginal cost of this action is estimated at approximately \$550. In order to make the decision to convert, the car owner must be convinced that the benefits will be at least equal to this cost.

Estimating marginal benefits is more difficult. This estimate is based on two categories of benefit. One is relatively easy to measure and the other is more difficult. One difficulty is that significant positive externalities occur if this private decision is made. A major benefit of the engine conversion is the reduction in air pollution, a benefit that all of the residents of Lima receive. However, the car owner is unable to receive any payment from these beneficiaries so the owner will not be able to include them in the decision to modify/not modify the engine. The important calculation the owner *can* make is that of any savings in fuel costs due to natural gas use. Most of the fuel cost savings come from the fact that the government-set price of natural gas in Lima is less than the world (market) price of natural gas. Assuming \$300 annual fuel cost savings would yield an attractive return on a \$550 fuel conversion investment in less than two years. This return is tempered somewhat by the inconvenience of a limited number of retailers of natural gas in Lima.

The \$70,000 gasoline/natural gas conversion investment by an existing gas station (for one pump) is a significant amount of money. The government is providing loans to encourage natural gas conversions at gas stations. The loans are repaid through a tax collected at the pump. Consequently, the gas station owner incurs little risk from this investment as the tax is only collected if there are sales from that pump. However, even though there is little risk, there is also no way for the station owners to gauge how quickly, if at all, the loan will be repaid before there will be pure profit from this conversion.

Case 3: Joe to Go: The Market for Coffee

Concepts: Supply and Demand. Market structures (oligopoly, monopsony, elasticities)

Situation: In the early 1990s there were fewer than 500 coffee houses in the United States. By 2001 there were approximately 10,000 coffee houses. This number has grown even higher in the last five years. While there has been some recent recovery in coffee prices received by coffee growers around the world, prices have remained at near historic lows, below 40 cents/pound for a number of years. Coffee prices peaked at nearly \$3 a pound in the mid-80's but have since fallen to less than 40 cents a pound. This development is having serious consequences for a number of developing countries because coffee is the main source of foreign exchange for several of these countries. It accounts for half of the foreign exchange earnings for Burundi and Uganda, for example, a strangling consequence for these

countries. This is a very unfortunate development that has gone virtually unnoticed in the coffee consuming nations of the world.

Coffee drinkers in the U.S. have not seen any price decreases for either their 2 pound can of Folgers or their iced maccachino. It seems that the plight of coffee growers around the world has been somewhat obscured by the increasing variety and sophistication of specialty coffees that have proliferated in the developed world coffee markets in the last decade.

Question: How is it possible for coffee growers around the world to be suffering from historically low coffee prices while coffee drinkers in developed countries see basically no changes in the price of Joe?

Answer: The simple answer is that supply far exceeds demand.

Supply conditions: The USDA, for example, estimated that for the 2001-02 coffee crop production was 116 million 60 kilo bags and consumption was only 111 million bags. Back in the 1990s, there were a number of frosts that wrecked havoc with the Brazilian coffee growers. Coffee prices increased as a result of these frosts. Those high prices provided incentives to growers (all around the world) to plant new trees. It turns out that coffee trees need at least two years of growth to produce yields sufficient to justify harvesting. The beginning of the 21st Century has now seen the benefits of those plantings as increased harvests are now coming from those newly planted trees. While the high prices of the mid – late 1990s encouraged tree planting, there was no immediate impact on price. In fact there seems to have been an over-planting that took place, whose effect is now to significantly depress world coffee prices. Vietnam, for example, accounted for about 2 percent of world coffee bean sales in 1990. It is now the world's second leading coffee exporter, only behind Brazil, and ahead of Columbia, Indonesia, and other important coffee producing countries.

Another possible explanation is that there is an oligopolistic structure in the coffee industry. The Starbucks and Folgers of the world are the main customers for tens of thousands of coffee growers around the world. Consequently, the major coffee makers serve as a monopsony (“oligopsony”) buyer with significant market power to hold the price of coffee since the growers have little market power. At the retail level, the coffee makers serve as oligopolists with potentially significant market power to resist price reductions.

Demand Conditions: Further complicating the picture is the fact that per capita coffee consumption in the U.S., the largest coffee consumer is declining.

Another part of the problem is that the price of coffee beans is a small part of the price of a sophisticated, retail, cup of Joe, in fact, it is only about 10 percent of the cost of a cup of coffee – hard to believe. Consequently, reductions in the price of coffee beans go virtually unnoticed at the latte shop.

An additional issue is the inelastic demand of coffee drinkers. Coffee drinkers often drink one cup of coffee in the morning, for example, whether price has fluctuated by a moderate amount or not. Consequently price reductions by sellers yield few benefits to the sellers' profit situation, prompting reliance on other marketing techniques rather than price competition.

Additional Question: What is the likely impact of the continuing decrease in coffee prices?

Answer: Since coffee consumption continues to be insensitive to price reductions, it becomes inevitable that coffee growers around the world will go out of business and coffee producing nations will find that their export status in the world will continue to sink.

Case 4: Sweet Deals: Sugar Subsidies

Concepts: Subsidies and policies that interfere with markets

Situation: Agricultural subsidies in Europe originated shortly after WWII in response to the European concern over the hunger and rationing experienced in their countries during the war. The result was the Common Agricultural Policy (CAP) that has been designed to keep Europe self sufficient in almost all agricultural areas. The CAP now accounts for approximately half of the EU budget. Subsidies to EU farmers in 2002 totaled \$93 billion, compared to about \$49 billion in the U.S. for similar agricultural subsidies.

Interestingly, annual aid to developing countries totals approximately \$50 billion from the developed countries of the world. Half of this comes from the EU. However, the CAP offsets much of the aid by depressing agricultural prices of products that developing nations sell to the rest of the world.

Question: How do subsidies to European farmers hurt developing countries?

Answer: In the case of South Africa, the EU donates approximately \$120 million in aid annually. However, South Africa loses potential export revenues of over \$100 million in sugar sales alone because of world prices that are depressed due to the sales of European sugar dumped on the world market.

The U.S. is not a bystander in this game. During the meeting of the WTO (World Trade Organization) held in Doha, Qatar in the fall of 2001, the U.S. stood by the developing countries to put pressure on the EU to cut its massive subsidies to sugar producers. France nearly walked out of the meeting but eventually caved in indicated its willingness to work toward the "substantial reduction" of some subsidies. As a consequence the CAP started working out the details of this.

However, in May 2002, the U.S. Congress passed the 4 year farm bill, which increased its subsidies of sugar. This was a reversal of previous farm bills that had been

gradually reducing payments to many agricultural commodities in the U.S. and turned out to be critical to George Bush's efforts to gain votes from the farm belt in the 2004 presidential election. EU reformers correctly cried foul play claiming the U.S. was undermining their own efforts to stand up to strong farm lobbies in France and other European countries. French President Chirac, a strong supporter of French agricultural subsidies, then announced that he would resist French reforms of farm subsidies which remain virtually unchanged to this day.

It's unfortunate for developing countries that sugar receives such heavy subsidies. It is a product in which they have a strong comparative advantage compared to the EU and U.S. Sugar cane grows like very well in many of the world's poorest countries. It requires little investment, unlike sugar production in more temperate regions of the world such as France or the US. Indeed until the early 1970s, the EU was an importer of sugar. Much of these imports came from former European colonies as the newly independent colonies continued their commercial relationships with their former colonial masters.

The cost of producing sugar in Europe is more than twice the cost in many developing countries. South Africa's growers of cane sugar sell it at the world price, exporting about half of the country's production. In 2002, it was estimated that if the EU held back its production and stopped dumping sugar on the world market, there would be a 20 percent increase in the price and would increase sugar revenues by about \$40 million.

Another Question: How do the depressed world prices influence the decisions of producers in developing countries like South Africa?

Answer: Producers typically operate very small farms-ten acres or less. The most frequent response to low market prices is to add more acreage, because they mistakenly believe as though they can increase their net profit by increasing their volume of production. This would work *if* market prices remained constant, however, this additional acreage, taken in total, has the effect of depressing prices further as they struggle to cover their variable costs of production, which are very low.

Yet Another Question: Why do such misguided policies continue to generate political support?

Answer: It was estimated in 2000, by the General Accounting Office, that the U.S. sugar program cost sugar customers about \$2 Billion per year. Because of large direct payments to sugar producers, the U.S. farm lobby has mushroomed. Sugar is the largest agricultural donor to political campaigns in the U.S. even though it represents only one percent of U.S. agricultural receipts. Similarly, in Europe, the farm lobby has political clout totally out of proportion to its share of the population or contribution to national production. This is explained by the fact that the benefits from market interferences focus on a few beneficiaries. The large costs of the program are spread throughout the entire population, increasing the

cost of sugar-intense items by only a few cents to each consumer. Consequently, there is little incentive for those harmed by these policies to actively lobby against them.

Case 5: Washington Consensus, or Lack Thereof

Concepts: Policies for Economic Development

Situation: The 1950's was the decade of Brady bonds; deregulation in the U.S.; privatization in the U.K., and the demise of the Soviet Union. The 1980s are often referred to as The Lost Decade, especially in Latin America, due to the continent's debt crises, exchange rate difficulties, hyperinflation, rising unemployment, unstable governments, and many other macroeconomic problems. In general, this decade was viewed as the decline of socialism and the ascendancy of conservative economic policy.

Conservative economic policy recommendations for Latin America were "enshrined" in a list of policy recommendations by John Williamson, *Institute for International Economics*, in 1990:

1. Fiscal Deficits – The IMF, especially, made restoration of fiscal discipline the major criteria by which it judged the credit worthiness of its international borrowers. A legacy of the Reagan administration was its clear preference of reduced public spending rather than tax increases as a means of balancing public budgets.
2. Public Expenditure Priorities – In addition to military expenditures, which are regarded as the prerogative of sovereign countries, there are three categories of public expenditures on which strong feelings are held: subsidies, education and health, and public investment. Subsidies were considered prime candidates for reduction or outright elimination. Education and health expenditures were considered to be the perfect examples of the proper role of government. Public investment, too, was considered proper for government, but often subject to corruption.
3. Tax Reform – The basic idea of agreement was that tax rates should be moderate and levied against a broad tax base.
4. Interest Rates – Two principles received general support in Washington. First, interest rates should be market determined and not reflection of policymakers efforts to ration credit. Second, a condition that contradicts the first, is that real interest rates should be positive, but moderate.
5. Exchange Rates – Exchange rates, like interest rates, should be determined by market forces. The "appropriateness" of an exchange rate is whether it is consistent with traditional macroeconomic objectives.
6. Trade Policy - Free trade should be the basis of foreign economic policy. Access to imports of intermediate goods should be regarded with the same importance as the promotion of exports. Policies of protecting domestic

- industries were considered costly distortions that punish domestic economies, while rewarding only a selected few.
7. Foreign Direct Investment – While explicit promotion of international capital flows is not considered a priority, restrictive policies that inhibit capital flows were considered to be ill-advised. Inflows of capital often bring needed capital not available from domestic sources. The motivation to restrict FDI is often simply economic nationalism.
 8. Privatization – The main rationale for privatization is the belief that private industry is managed more efficiently than government run organizations. Private businesses are threatened by bankruptcy as a means of curbing inefficient resource utilization while no such incentive exists in the public sector.
 9. Deregulation – While this was initiated by the Carter Administration, much of the credit for deregulation of American industries was given to the Reagan Administration. It was felt that the benefits of deregulation would be even greater in Latin America, which contained the most heavily regulated market economies.
 10. Property Rights – These were not an issue in the United States, but there was a general belief that property rights were not secure in a large number of countries.

These ten points all seem to stem from classical economic theory. Little room is left for most of the development literature as support for ideas to promote growth in the developing world.

Lets evaluate the success of the Washington Consensus in Latin America:

The Latin American decade of the 1990s was unquestionably a success in comparison to the 1980s. Economic growth increased. Inflation and government deficits decreased. In fact, almost all economic indicators improved during the 1990s. However growth was affected by the inconsistent macroeconomic policies throughout the region. Peru exhibited perhaps the most dramatic improvement in macroeconomic performance. For example, its inflation rate in 1990 of more than 7,000 percent fell to 6 percent in 2000. More generally however, the macroeconomic improvements did not translate into widespread public support for the Washington Consensus, because the benefits of the improved economic circumstances that were experienced in most Latin American countries did not translate into widespread improvements in economic welfare throughout Latin American societies.

While economic growth and inflation rates have improved, widespread unemployment remains. Unemployment and underemployment has proven to be an intractable problem. This has translated into diminishing public support for reforms.

Latinamericobarometro reported in 1998 that more than 50 percent of Latin Americans thought that privatization was beneficial for their country. This strong level of support fell to 31 percent in 2000 and 25 percent in 2003. In 1998, 78 percent of Latin Americans thought that a market economy was good for their country, compared to only 25 percent in 2003. This includes an 8 percent level of support in Peru.

An important reason for the continued high unemployment rates is the enclave nature of many Latin American economies. There is limited economic exchange between regions of the country. Regions that are booming do not generate improvements in other parts of the country. The reasons for these disjointed economies reflect poor infrastructure, discrimination, natural barriers, etc.

The result is the impression by much of Latin American that reform is for the rich, and that economic growth aggravates economic inequities that exist in society.

Question: List and discuss specific ways in which acceptance of the Washington Consensus has added fuel to the belief that it aggravates social problems?

Answer: Large fiscal deficits have decreased due to reductions in government expenditures. Unfortunately Latin American governments have been most willing to cut expenditures for services received primarily by low income groups, while maintaining expenditures for programs with special interest support from a small number of people.

Open capital markets have allowed foreign owned businesses the opportunity to exploit economic markets unavailable to domestic firms. These foreign investors often “take the money and run.” In the case of mining operations for example, foreign companies, import skilled foreign workers and hire domestic labor only for low skill jobs, while driving up local prices and causing more problems for the local population than they had before.

Deregulation and/or privatization of local enterprises often results in workers losing existing jobs as redundant labor is laid off.

Question: Are there reforms other than the Washington Consensus, that developing nations should consider?

Answer: The Washington Consensus probably is a set of necessary but not sufficient conditions for healthy economies.

A second set of reforms, perhaps even more difficult to achieve, include judicial reform, equity improvements in education access, tax reform, political reform and many others. In fact it seems that many ideas are now crowding the discussion of what Latin American countries should do to improve their economic condition.

Paul Krugman has advocated controls on international capital movements, while Jeff Sachs focuses on the need for improvement in human capital accumulation and micro-credit availability. (Other answers are possible).

Case 6: Adam and Eve/ Money and Inflation: Original Sin

Concepts: Equation of Exchange (M^S and inflation)

Situation: The Equation of Exchange is the basis of the historically observed close (positive) relationship between the money supply and the rate of inflation. That is to say, increases in the money supply, *ceteris paribus*, tend to generate inflation. This phenomenon has been observed for centuries. For example, the Spanish trading ships that returned to Spain loaded with gold caused inflation in the immediate region surrounding the Spanish port because much of the gold became a medium of exchange (money) and served to increase prices with a greater volume of money in circulation. Since the amount of goods, at least in the short run, was fixed this is the equivalent of more money chasing a fixed amount of goods causing prices to be bid upward – hence, inflation.

During the 1970s the U.S. experienced its highest rate of inflation, culminating in annualized inflation rate of 13% for a brief time in 1982. Much of the reason for this inflation has been attributed to the high growth rate of the money supply during the 1970s, which was done as an effort to increase the rate of economic growth and to reduce the national rate of unemployment.

But the most severe modern cases of inflation have appeared in the lesser developed nations of the world. Latin American countries have been especially prone to this problem, which has become known as ‘original sin.’ Original sin arises from the monetary dilemma a government finds itself in when it is not politically able to increase taxes or to borrow funds in its own currency. This would be the equivalent to the situation that the Bush Administration could find itself in if it were not able to sell US government bonds (denominated in dollars) to finance the current federal budget deficit of over \$500 billion. In that case, the U.S. Treasury would need to borrow money (incur debt) by borrowing British pounds or Japanese yen from foreigners. Happily, this has not yet happened in the U.S. or in other developed countries of the world. However, it is quite common in less developed countries, especially in Latin America.

This ‘Original Sin’ has been experienced in many South American countries within the last fifteen years. The most recent case occurred in Argentina in 2002. The Argentine case had roots similar to most others: Successive years of annual budget deficits were financed by selling government bonds denominated in the national currency. Since the bonds were initially denominated in the national currency the effect of the budget deficit on the amount of money in circulation was minimal, because national bond sales ‘soaked up’ much of the money put into circulation by the deficit spending of the national government. However, this deficit spending did have the effect of increasing aggregate demand, thus causing some early, but manageable, inflation. As time passed, however, bondholders realize that this inflation was eating away at the value of their assets (bonds). Consequently, they demanded a higher interest rate from the government in order to continue to by bonds (finance government debt). As interest rates rose the government realized that if it didn’t

ease credit conditions (lower interest rates), then the economy could be pushed into a recession. Consequently, the national government relaxed credit conditions to deal with recessionary fears. This in turn, fed the inflationary trends in the economy, again causing bondholders to demand even higher interest rates. In Argentina this spiral continued until the Argentine people finally responded by, in essence, saying, “We will no longer buy bonds denominated in our own currency because we are losing too much of our assets to inflation.”

The Argentine national government could have responded by balancing its budget so it didn't need to sell bonds to the public. However, government spending in Argentina could not be cut due to political promises made to voters and party members throughout the country. The only way Argentine government spending could be financed was by borrowing money from foreign lenders, who demanded repayment in dollars, euros, and yen. Unfortunately, after this foreign money was borrowed and then spent in the domestic economy, there was a tremendous surge in the domestic money supply. This monetary surge then propelled the inflation rate to extremely high levels.

The cycle was broken in Argentina only when the Argentine government declared bankruptcy by defaulting on its foreign debt. Suddenly the government had no money to pay its bills at all as no borrowers were willing to continue to lend to them. Government expenditures throughout the country dried up. Argentine banks closed. The unemployment rate shot up to 20%, and foreign holders of bonds due to the Argentine government lost all of their money. After more than a year of negotiations, these foreign bondholders have now been paid about 20 percent of their initial investment. As a consequence the country of Argentina is now able to borrow money again on international credit markets, albeit at rather high interest rates.

Questions:

1. Calculate the average annual rate of inflation and the average rate of monetary growth in the U.S. for 1972-82; 1983-1993; and 1994-2004. Does the equation of exchange hold?
2. Draw a set of graphs showing the annual rate of inflation, the short term interest rate, and the annual rate of monetary growth in Argentina, Bolivia, Peru, and Japan (one graph for each country with all three variables on that graph). What is the relationship between these three variables?

Answers: See various websites for data, plot and discuss.

Case 7: Ups and Downs, Ins and Outs, and International Business Cycles

Concepts: Gross Domestic Product, Business Cycles

Situation: National business cycles are the irregular ‘ups and downs’ of the economy. There are two phases to a business cycle, expansion and recession. The turning points of a recession are called the ‘trough’ and the ‘peak’ of the cycle. The cycle is measured by the gross domestic product of the economy, which is the market value of all final goods and services produced in one year. A complete business cycle runs from the peak of one cycle to the peak of another cycle, or, conversely, from trough to trough.

One tricky part of business cycles is determination of whether or not the economy is in a recession, as it is occurring. One commonly accepted definition of a recession is the existence of two consecutive quarters of decreasing gross domestic product. Each expansion and recession have been dated by the National Bureau of Economic Research. Since 1919 there have been 16 recessions and 17 expansions. Recessions, on average, have lasted for slightly more than one year and gross domestic product has decreased, from peak to trough, by more than 6 percent. Expansions during most of the 20th Century have lasted for almost 4 years, on average and gross domestic product has increased from trough to peak by an average of 22 percent.

These averages, however, hide large variations from one business cycle to another. The Great Depression was the worst recession ever experienced, when gross domestic product decreased by 33 percent over a 43 month period. No other recession has come close to the experience of the Great Depression. The second worst recession in the U.S. occurred during 1974-75 when gross domestic product decreased by 5 percent, and lasted for 16 months. The most recent recession, from December, 2000, to October, 2001, was so mild that the measured gross domestic product for 2001 actually increased slightly.

Finally, the record of 20th Century business cycles in the U.S. shows that since World War II, business cycles have become milder, with expansions lasting for longer periods of time.

Questions: [Note: pick several countries of various sizes and level of dependence upon foreign trade for students to analyze as this will give the widest set of experiences to examine. Also, groups could be assigned different countries so that each presents their results to the whole class so that in-class discussion would cover some of the questions below]

1. Which of these countries has had the most/fewest business cycles since 1978?
2. Which of these countries has had the greatest/smallest growth rate since 1978?
3. When was the deepest recession in each of these countries?
4. When was the fastest annual rate of expansion in each of these countries?
5. Do any of these countries exhibit a timing of their deepest recession/strongest expansion that is close to the U.S.? How do you explain this result?

6. Compare the 1978 – 1991 period to the 1992 – 2003 period in each country. Calculate the average annual rate of growth in these two periods and compare the results. How do you explain your findings? Which country surprises you? Why?

Answers: Again, see various websites for data.

Case 8: The Price of Misery: Emissions Permit Trading

Concepts: Creating markets for externalities.

Situation: The Kyoto Protocol was signed by most European nations. In an effort to achieve a significant reduction in greenhouse gas emissions, the EU's Emissions Trading System (ETS) was established in January, 2005. The ETS established a market for trading carbon emission permits which were given to thousands of polluters in Europe. Initially, permits for 2.2 billion tons of carbon dioxide were given to 13,000 industrial polluters who could either use their permit to pollute or sell it to another company if the cost of reducing their own carbon emissions was less than the market value of the tradable permits they were given by ETS. Approximately 10 Billion Euros worth of permits were traded in 2005. The first permits that were traded in early 2005 sold at a price of less than \$10, however the price more or less increased continuously until April, 2006, when the price plummeted from approximately 30 Euros per ton of carbon dioxide to 12 Euros in late April, 2006.

Questions:

1. Why did the price of EU emissions permits increase?
2. What caused the price of EU emissions permits to drop in April, 2006?

Answers:

1. A major reason that permit prices increased in Europe is because of the increased difference between gas and coal prices. Electric utilities dominate the emissions permit market because the utilities account for such a large portion of total carbon emissions in Europe. The most important fuels used for electricity generation are gas and coals. As natural gas prices have risen in recent years, utilities attempt to switch to coal, a cheaper fuel. However, coal is a more powerful carbon polluter than natural gas. So as utilities switch to coal fuel, it is necessary for them to buy more emissions permits, which drives up the price. Since January, 2005, when permits began to be traded the price of permits increased consistently until the price plummeted from 30 Euros per ton to approximately 12 Euros in late April, 2006.

2. In late April several EU nations reported the amount of carbon they had emitted in the previous year. The reports indicated that carbon emissions in these countries were

much smaller than had been expected. Suddenly the future demand for permits disappeared and the price dropped sharply, because many polluters realized they had emissions permits for more than they really needed.

Additional Information: This condition did not reflect the ETS trading system's success in reducing pollution. Rather it reflected the fact that these polluters had received more permits in early 2005 than they really needed. Polluters had received these permits free; but they soon found themselves sitting on a fortune of emissions permits, which were an unexpectedly valuable asset. It was estimated that the British electric utilities received 800 million pounds in unexpected profits.

Another Question: Why did emissions permits not encourage a switch to cleaner fuels?

Answer: Part of the reason that natural gas (the clean fuel) did not begin to replace coal energy (the dirty fuel) is that natural gas prices increased faster than coal prices. More importantly though, new natural gas facilities represent investments in very long lived assets. Unfortunately the first phase of the ETS permit system lasts for only 3 years. After 3 years, nobody knew for sure what kind of trading system (if any) will exist. Consequently no one in the private sector will make an investment in natural gas generators when the future, beyond 3 years, is totally "up in the air."

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