GLOBALIZATION, ECONOMIC EFFICIENCY, RELIGION AND THE EURO: SOME MYTHS AND A METHODOLOGY

**ABSTRACT.** Many myths currently circulate in the U.S. about globalization and its impact on the U.S. and world economy. The collection of statistical data can often destroy the myth and shed light on what is truly going on but require statistical methods beyond descriptive graphs and tables to deepen the analysis and truly explore economic performance. The article discusses some current myths about globalization and proposes a methodology that has been used to analyze microeconomic and macroeconomic issues in many countries. It is hoped that such a methodology might be used in this journal to further the journal’s mission of fact-centered research that goes beyond purely descriptive analysis. A discussion of linkages between applying the method and other topics follows to stimulate research using the method.

**KEYWORDS:** efficiency, euro, religion, current affairs.
Introduction

Currently in the U.S. in this very political year, there is much discussion of globalization, “outsourcing” of American jobs and our relations in general with the rest of the world. Many believe these relations have deteriorated and new leadership is called for. Others see a need to stay the course and continue with current policies. In this debate we see many old myths that are put forth as if they were new, creating discussions that often ignore past discussions from decades before. As some of these myths are economic issues, they can be addressed with facts and descriptive statistics to show they are not true. Such myths are likely to surface in discussions of East European countries and the transition to joining the EU and overcoming the Soviet dominated past.

Within these discussions, one often encounters the use of the term “efficiency” which takes on many meanings ignoring the large economic literature. For this reason, the essay seeks to describe some of the myths, why they are not true at least in part, and to outline how we can approach the idea of “economic efficiency” in our research so that we all use the same definition from the start. If we can all start from the same definitions, then we can make our research much clearer to all readers. Further, the methodology also facilitates and invites empirical analysis well beyond economics as it allows a quantitative inclusion of research from other social sciences. A few examples of research ideas are presented within the context of the efficiency literature to hopefully stimulate studies in these important areas.

Globalization: Myth and Reality

Myth #1: Globalization destroys American jobs. Companies that send jobs overseas (called “outsourcing”) to countries like Lithuania that have lower wages should be taxed or penalized.

Reality: The U.S. economy has been sending jobs overseas and has been attracting foreign workers (called “insourcing”) for over 200 years. Some 20 years ago, a Council on Competitiveness in the Reagan Administration addressed the issue of American jobs being lost overseas, so the issue is not new. Recently, the U.S. economy has imported more jobs than have been exported abroad. Whole companies such as Novartis in Switzerland are moving their research and development operations to the U.S. In 2001, foreign companies created 6.4 million jobs in the U.S., over a million more than ten years before. U.S. states that complain the loudest about jobs going overseas are often the same states that have benefited most from foreign firms creating jobs within their borders (Wriston, 2004). Thanks to the North American Free Trade Act, Mexican households are wealthier, buying more American goods and we are starting to see Mexican firms investing in the U.S. and creating jobs in America. In sectors such as computer systems, companies sent jobs abroad, increased productivity and actually created 90,000 jobs in the U.S. in 2003 and an expected 317,367 jobs by 2008 (Schroeder, 2004). Sending jobs abroad allows a company to cut costs that are passed on to lower prices on both domestically sold output and exports. The increased demand for what the company sells creates new U.S. jobs and even leads to foreign companies to create new work in the U.S. which might be called “countervailing insourcing”.

This myth also ignores the fact that wages vary greatly inside the U.S. If companies were solely interested in low wages, states such as Arkansas would have a lot of big companies. But in fact the state government of Arkansas spends money trying to convince both U.S. and foreign companies to come to their state – to “outsource” to their state. And many other states do too. These regional governments would not need to do this if low wages were all a company needed to move.
Companies also find that when they do move to low wage countries, there are often language and cultural differences that can cost a lot of money to overcome. And basic utilities such as electricity and water that the company always had in the U.S. may not be so reliable in the new location – another hidden cost of relocating abroad. More fundamentally, the company may need to hire greater numbers of workers than in the U.S. because the labour productivity is lower in the new country due to many factors such as the capital stock, educational advantages, and lack of experience. So the initial low wage that seemed so attractive may not lower labour costs if additional numbers of workers required increases. This is why only certain kinds of companies can truly relocate for low wages – a key to understanding what kind of jobs are less likely to be “outsourced”. If societies are concerned about jobs going away, they should concentrate resources on sectors of the economy where outsourcing is less likely. Students looking for stable careers should also focus on these sectors. The average American student will change careers 5 times in their working lives – so they must be flexible and with enough education to make the career jump as the American economy changes.

**Myth #2: American manufacturing jobs are going away which hurts the U.S. economy.**

**Reality:** America is no longer a manufacturing economy. Less than 20% of the U.S. labour force now works in manufacturing. Decades ago the same shift occurred in agriculture and the same fear was raised then that the U.S. economy could not survive without agriculture (now less than 1% of the labour force). Costly subsidy programs to protect sugar, tobacco and other farmers remain in place from that era and have proven politically difficult to eliminate. Milk prices were set across America by the distance the milk was from the town of Eau Claire, Wisconsin – a policy that made no sense once refrigeration made possible interstate transportation of milk, but was not ended until long after interstate trade made the policy irrelevant. Setting up large manufacturing subsidy programs now would likely create similar problems for decades to come. This structural unemployment must be addressed with retraining programs that allow workers to flexibly move away from manufacturing employment to service and information based jobs. My university for example has just opened a new college of information technology with a state of the art building to help students get skills in this important area. We know from examples such as the former Soviet Union that countries that attempt to freeze their economic structure to create 0% unemployment fall behind the world economy.

The world economy may also be moving away from manufacturing. China may lose manufacturing jobs this year. Bangladesh may also lose manufacturing jobs as the world textile quota system is ending in 2004, causing job loss to China. So lost manufacturing jobs are a problem with consumer demand as well as supply. And the problem is not just in developed countries. The issue is best addressed by asking why consumers are not buying so many manufactured goods any more and looking at the very high labour productivity in manufacturing in many countries. This issue is also being forced on West European labour unions as employers threaten to move east within the EU to take advantage of cheaper labour. If a company cannot lower wages and workers can’t improve productivity, then that company will move east within the EU if it can. The U.S. economy is perhaps remarkable in that it has retained many manufacturing jobs because American workers have increased their productivity enough to compete even with low wage alternatives, and this is seen in very recent improvements in manufacturing employment in 2004.

**Myth #3: The North American Free Trade Act was bad for the U.S. economy and the overall U.S. trade deficit is a problem.**
**Reality:** NAFTA is now ten years old. Dramatic change has occurred in Mexico with some households moving from being paid $0.50 a day to $0.50 an hour. Increasing household incomes in Mexico 8 times is good for Mexico, but also good for the U.S. thanks to increased exports. Mexico is now increasing direct investment in the U.S. Unlike some other countries, relations with Mexico are now much improved. Workers from south of Mexico now try to get jobs in Mexico as well as in the U.S. Instead of the IMF and the U.S. bailing out Mexico again and again, the Mexican economy is now growing without assistance. As growth continues immigration should slow as workers will see no need to move from their native country for higher wages. The millions of dollars spent each year by the U.S. in “defending” the border with Mexico is a misallocation of badly needed money for education and tax reduction. Perhaps the best way to slow or even halt world population growth is to make households richer and voluntarily want fewer children. The next years will show if this can happen in Mexico.

The U.S. has had a trade deficit every year for over 20 years. During that time millions of new jobs have been created and the economy enjoyed its longest expansion ever. Since the U.S. trade deficit is, by definition, a trade surplus for the rest of the world, the deficit has also created millions of jobs in other countries. Economies that once were perceived as a threat to the U.S. economy because of their trade surpluses with the U.S. such as Japan have not done well at all. Other countries that traded very little with the U.S. 20 years ago have grown in importance as trade partners along with improved relations (e.g. China). When the U.S. has created improper trade barriers (e.g. the recent steel tariffs by the Bush Administration), the EU and WTO have been able to properly complain and get them eliminated or at least lessened. There are many problems with world trade still, but the situation has never been better for moving toward free trade with no restrictions.

**Myth #4:** Gasoline prices are at an all time high illustrating yet again American dependence on foreign oil.

**Reality:** Nominal gasoline prices are rather high, but real prices are the same or lower than 20 years ago. The burden of gasoline expenditures on American households has never been easier to avoid as there are a wide variety of fuel efficient cars available. Hybrid cars each year are becoming cheaper and more available. The U.S. economy is less dependent on the use of oil than it was in the 1970s when oil shocks did hurt the economy. Thanks to the Sept. 11 terrorist attack and competition, airfares are very low as airlines struggle to get consumers flying again. Any attempt to impose a federal gasoline tax for sound environmental reasons to raise the price of gasoline to levels found in Western Europe would probably fail for political reasons. So there is no gasoline shortage or price threat at all. And any discussion of gas prices should include the substantial increase in fuel efficiency per mile that has been achieved since the 1970s in even very large cars.

**Using Efficiency Methods to Analyze These and Other Economic Myths**

A myth is often defended as promoting some sort of efficiency. However, what efficiency means is often not clear even in academic journals. This is surprising given the large literature analyzing efficiency that is briefly described here. The literature simply explains how to analyze data using the notion that many concepts in economics are one-sided. Production has a maximum and costs have a minimum. A firm that has maximized production or minimized costs can do so relative to other firms in the industry around the world or relative to some engineering best practice. Usually firms are measured relative to other firms in the industry with the understanding that the engineering best practice is something to strive for but may never be achieved. Any group of economic units (firms, industries, countries) can
therefore be analyzed by comparing the best practice units to the other units in the sample. So when the production or cost of anything is measured, the method used should take into account the one-sided nature that we all learn in our first economics class (e.g. the production possibilities frontier). However, standard measurement of production and cost assumes that the production and cost functions are average functions with no one sidedness mentioned at all. The efficiency literature addresses this problem by explicitly including in the analysis a one-sided term to better reflect what economic theory tells us.

Economic efficiency can be separated in to two parts – technical and allocative efficiency. Technical is often measured using a production function with a given set of prices. If something is technically \textit{inefficient} then some resources (inputs) are idle for a variety of reasons. Allocative efficiency is often measured with a cost function and analyzes different sets of prices. Over 1000 applied papers have been written using efficiency methods that are easy to apply using software found in Coelli (1994) and popular software packages such as STATA. Whole journals such as the \textit{Journal of Productivity Analysis} are dedicated to articles using these methods (www.helsinki.fi/webec/journals.html). The researcher can choose between linear programming or econometric methods, with some choosing to do both and compare results. Several literature reviews are a good place to start when making a choice (e.g. Fried, \textit{et. al}., 1993; Bauer, 1990). By using efficiency methods, researchers can better focus their work on what exactly they want to say about efficiency in terms familiar to a global audience. Terms such as “managerial efficiency”, “cost efficiency”, “profit efficiency”, “X-efficiency” and simply “efficiency” should be avoided unless used in the framework of this existing literature. Efficiency analysis can be especially useful if the researcher is sceptical of reported profit figures by firms – analyzing efficiency can give an alternative indicator of how well a firm is performing besides reported profit. Because of the widespread use of these methods, researchers can probably find a paper on whatever country they wish to write about. For example, these methods have been applied to farms in Africa (Audibert, 1997), cities in Belgium (De Borger et. al., 1994), Soviet era firms in Vilnius (Brock, 1995) and the Kaunas candy factory (Afanas’ev and Bolniene, 1987). Researchers have not been content with just measuring efficiency of firms, but have expanded research to include such ideas as environmental quality, freedom and institutions (e.g. Adkins \textit{et. al}., 2002 and Moroney and Lovell, 1997). So those new to these methods should not be put off by narrow studies that only look at select firms or farms – the literature is rich enough to analyze economic institutions, public goods, and environmental issues such as the ecological footprint concept discussed in other issues of TIBE.

\textit{Back to the myths.} Rather than simply using descriptive statistics to show the myths are not true, efficiency methods can be applied looking at the myths with specific research questions that can be asked not only about the U.S. economy, but also about an economy such as Lithuania’s. The questions could be (using each of the myths): When Lithuania joins the euro zone in 2007, what impact will this have on the efficiency of firms and farms, or even the efficiency of the economy overall relative to the other Baltic nations? Are manufacturing jobs going away in the Lithuanian economy – and if so, what impact does this have on firm performance overall? How have trade pacts signed and implemented by Lithuania improved the efficiency of firms and farms as economic theory would suggest? As energy prices increased in real and nominal terms after the end of the Soviet occupation era, what impact did these higher input prices have on allocative efficiency in the Lithuanian microeconomy?

Each of these questions would require data collection and statistical analysis well beyond descriptive statistics and graphs to get at a clear measure of economic performance based on the extensive literature. This, to me, is the exciting task that lies before us as countries in transition like Lithuania fully join the world economy and adapt a new currency.
Thanks to advances in this literature, anthropology, sociology, marketing and environmental issues can all be incorporated into efficiency analysis. The old economic problem of balancing between what is efficient and what is equitable (i.e. fair) as determined by a society can be organized and discussed with a common set of definitions.

**Economic Efficiency and Religion**

As an example of the tremendous reach of the efficiency literature across other social sciences, I would like to suggest how these methods might be applied to something that appears to be outside the possibility of economic analysis – religion. Since the time of the Danish philosopher Kirkegaard (or perhaps even earlier), many have believed that science and religion should be kept separate. Kirkegaard believed that religion required a very unscientific “leap of faith” that could only be done if one accepted that there were things outside the purview of science. He saw no need to use science to analyze religion as faith was not something science could address. An example of this might be the recent carbon dating of the shroud of Turin that was supposed to be from the time of Jesus. Kirkegaard might say that one should simply accept as an article of faith that the shroud is real, while a scientist might say that she could only accept the shroud as real if it was carbon dated and proven to be from the time of Jesus. And until the 1970s, almost all economists seemed to accept the idea that their work wasn’t applicable to religion. This is somewhat surprising given that Adam Smith included a chapter on religion in his classic *Wealth of Nations* (Iannaccone, 1998).

The joining of 10 countries with 15 countries on May 1 presents many interesting research questions. One that is likely to be much discussed is which countries will grow most once they join. While many economists will (and have already) gathered much data on this process, no study could be found that explicitly included religion as a growth factor despite the obvious differences in religious background between, for example, Catholic Lithuania and Lutheran Estonia. This despite recent research showing not only that religious beliefs are associated with economic attitudes conducive to higher per capita income and growth, but also that having a Protestant versus Catholic religious belief can lead to strong differences in how one views incentives and private property (Guiso, et. al., 2002). The literature on the economics of religion currently needs more research to understand if the religion/economic growth link is causal, and it seems the EU enlargement is a good case study of this.

How efficiency and religion might be linked is to do cross-country regressions on the new 10 and perhaps the existing 15 EU members. Cross-country regressions have recently been shown to be useful in understanding the impact of legal origin on financial development of a country (Beck, et. al., 2003) as well as the technical efficiency of different countries (Moroney and Lovell, 1997). Cross-country regressions require data on aggregate output, labor, energy and capital stock that are usually readily available at national statistical bureaus. These can be used to analyze an aggregate production function that will generate a technical efficiency score or index as found in the efficiency literature. Using methods further developed in the 1990s in the efficiency literature, “z” or auxiliary variables for each country can also be used in a one step procedure to analyze how religion impacts on output and productivity growth as well as technical efficiency. The method goes a long way toward answering the criticism from other social sciences that economics does not do enough to include cultural and institutional variables by explicitly including religious attitudes.

Quantifying religious belief appears to be difficult, but has been done for many countries using the World Values Survey done at the Institute for Social Research at the University of Michigan as noted by Guiso et. al. (2002). Questions to understand religious belief that can be used as quantitative variables include “Were you brought up religiously at home?”, “Do you believe in God?”, and “Do you belong to a religious denomination? If yes,
which one?” Interestingly in the U.S., the second question about God has persistently had a high positive percentage since the 1930s as reported by the Gallup polling organization– in good times and in bad times for the U.S. economy, belief in God has been unchanging in the U.S. The survey carefully uses many control variables such as age, sex, etc. to insure high quality when looking at respondents. While religion is found to develop attitudes conducive to economic growth, religious people are also found to be more intolerant and have more conservative views of women in society. If one believes that full participation in the work force by both sexes is best, then this issue associated with more religious belief could serve to slow economic growth over time.

The survey also finds some evidence for Max Weber’s Protestant work ethic as only those who identify themselves as Protestant or Hindu support income inequality as a means to provide incentives in the economy. This would translate in to a hypothesis that those new EU members who join on May 1 that have predominantly Protestant religion will tolerate greater income inequality than those countries such as Lithuania that do not. Will greater income inequality lead to higher economic growth is a question that can be answered already for 1991-2003, but it will be interesting to see how growth patterns change after EU entry as well.

**Economic Efficiency and Energy**

Many countries entering the EU as well as the U.S. must grapple with energy policy and the choices scarcity forces upon us. In the U.S., no new nuclear power plants have been built in decades though very recently the idea of building more has been proposed by some companies (Wall Street Journal, p. 1, April 1, 2004). While much is made of the Three Mile Island nuclear problem 25 years ago, little is said about the other nuclear plants in the U.S. that have been operating now for over two decades with little problems including one at Three Mile Island. While nuclear energy is only 20% of U.S. electricity generation, coal constitutes over 50% and may grow thanks to uncertain natural gas supplies. As the U.S. has plentiful coal supplies and little natural gas, coal receives strong support in the U.S. as a source of power. Environmental concerns are very real, but fortunately recent small power plants using a gasification technology that removes potential pollutants before they are burned promise hope that “clean coal” can be used for decades as a reliable power source (Smith, 2004).

The efficiency literature can be brought to bear on this issue by including specific kinds of energy directly in the production function as inputs. Electricity consumption can also be used as a proxy for output as is done by World Bank analysts looking at countries in transition when reliable output indicators are hard to find. Energy policy can be included as “z” or auxiliary variables as well. For example, the Lithuanian economy with and without Ignalina can be analyzed using a standard production function that includes labour, the capital stock, nuclear energy and non-nuclear energy as inputs. If nuclear source electricity is cheaper than other kinds of electricity allocative efficiency may worsen, but technical efficiency must be considered as well. A threat of a nuclear accident can be quantified by reducing Lithuanian’s GDP by the amount estimated to clean up an accident. Probabilities can be used to weigh large and small accidents as needed. Such a framework has been applied to the U.S. economy across many industries for long periods (e.g. Jorgenson, 1984).

**Economic Efficiency and the Euro**

As the Baltic States join the EU and eventually adapt the euro, many macroeconomic studies have been produced to analyze the impact on inflation, the balance of payments and other macroeconomic measures (e.g. Ross and Lattemae, 2004). But as many of these studies note, the key issues in when to adapt the euro and what impact it will have are related to
productivity, intra-industry trade, and the business cycle becoming coincident with the Euro land business cycle. Understanding economic efficiency can help to examine the impact of the euro. For example, prices generally rose in Greece after the adoption of the euro as storeowners took advantage of the new currency and a public that still “thinks” in the old currency (drachma) but now has new coins and currency to spend. So allocative efficiency clearly was impacted by the demise of the drachma. The Baltic States are especially of interest here as the demise of the rouble and now their national currencies, such as the Litas in Lithuania, have happened in a relatively short period of time – rare for most economies.

Cross country studies of the new members will be perhaps especially fruitful as some predict countries such as Hungary will have an easier time of it given their business cycle is already close to some Euro land members. Lithuania and Slovenia, however, are seen as having a more difficult time with the euro because their business cycles are not yet close to any Euro land members (Fidrmuc and Korhonen, 2004). Cross country comparisons of economic efficiency at the macroeconomic level as well as microeconomic can help to understand the before/after impacts of the adoption of the euro on these economies using the cross country literature mentioned above.

Conclusions

Using facts and a common methodology to show some popular myths about any economy are often not true is a key task of economists today. Often economists are criticized as being too empirical and too narrow in their application of a methodology that may not be easily understood by those who have not studied the discipline a lot. To make the economics more palatable, we need to expand our arguments to encompass hot topics such as conversion to the euro and issues that seem to defy empirical analysis such as religion. Even if we fail to convince others of the argument, the attempt to bring in their perspective to a standard economics literature such as the economic efficiency literature will go a long way toward including other social sciences in the economic analysis. Along the way, economists strengthen their theoretical understanding of the economy and the forces that lead to demand and supply shocks at both the macroeconomic and microeconomic levels.

If Europe is truly undergoing an “identity crisis” as some suggest (Kaminski, 2004) with some regions of Europe seeing the EU as an opportunity to push independence claims that national governments had not respected, then the study of efficiency in a broad context takes on even greater importance as regional independence movements often claim economic differences or neglect by a national government. Efficiency analysis can show which regions are relatively more efficient and how some institutions in those regions may have been the cause. Such lessons can be used across the new Europe to help achieve the essential federalism that has been the goal since the Treaty of Rome so Europe can act decisively in world affairs.

References


GLOBALIZACIJA, EKONOMINIS EFEKTYVUMAS, RELIGIJA IR EURAS: KAI KURIE MITAI IR METODOLOGIJA

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SANTRAUKA

Šiuo metu Jungtinėse Valstijose sklando įvairūs mitai apie globalizaciją ir jos pasekmės JAV ir pasaulinėje ekonomikų. Surinkta ir išanalizuota statistinė medžiaga gali šiuos mitus panaikinti ir viesti esamą padėtį tikroje įvykių šviesoje. Autorius teigia, kad reikėtų taikyti tam tikrus statistinius metodus, kurie galėtų įvertinti, kas slypi už išraiškingų statistinių lentelių ir brėžinių, bei nustatyti gilumines ekonomikos rodiklių problemas.


REIKMENIAI ŽOD ŽIAI: efektyvumas, euras, religija, einamieji įvykiai.

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