

Statement of Ralph E. Gomory
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Introduction

I am pleased to be able to contribute to the commission’s work as part of the panel on “The Underpinnings of Globalization”.

Let me start by observing that much of our understanding about trade and its effects originated in a world very different from today’s world of emerging globalization. It is remarkable how much of that thinking developed then is still valid today. However in view of the almost total transformation of the conditions of international trade, it is reasonable to expect some changes and additions to that understanding. I will touch on some of those aspects today reflecting the work that Professor Baumol and I have done in this area.

One of the things I hope to get across is that the effect of things like offshoring, one of today’s most important topics, are not easily captured in a single phrase. It is not true for example that all offshoring is bad, nor is it true that all offshoring is good. Similarly it is not true that improvements in productivity abroad are always beneficial to this country. Nor is it true that they are always harmful. Reality is just one step more complex than that. Although this more realistic picture that I will paint does not make for simple slogans, it represents a reality that we will have to face sooner or later.

Changes in International Trade Since the Time of Ricardo

International trade has undergone enormous change in the almost 200 years that have elapsed since the time of the influential trade theorist David Ricardo. In Ricardo’s time trade is estimated to have constituted about 1 percent of world GDP. Since then, despite exploding world output, the volume of trade *relative to GDP* has risen by more than thirteen fold.¹

It is also clear that the nature of the goods entering into international trade has changed along with the quantities. Advantages based on natural resources still exist, but more dominant today are advantages that can be *acquired*. These can be the advantages conferred through being established in an industry and gaining thereby either specialized knowledge or economies of scale or scope. There is also the possibility, in industries, where knowledge is easily transferred, and where economies of scale are not significant, of dispersing production around the world to use cheap labor or other special advantages, and then to exploit the cheapness of modern transportation or wideband communication to deliver these goods or services to global markets.

One might conclude from all this that the location of economic activity today no longer matters. After all companies can repatriate their profits from whatever part of the globe houses their actual economic activities. However, in almost all cases, most of the economic benefit stays where the value is added. Most of that value added, wages, etc,

¹“Global Trade and Conflicting National Interests” Ralph E. Gomory and William J. Baumol. MIT Press, 2000.

remains local. It still matters to a country to be the site of an economic activity, whoever may own the company.

The Way It Was

In the classical Ricardo model the economic outcomes for trading countries tend to be unique. Free market forces, including free international competition, determine what goods are made where. From this unique outcome also flows a fixed and theoretically predictable degree of prosperity for each country. A country that ends up producing little of value will have little to consume at home and little to trade abroad, and will have a low standard of living.

A well-known and appropriately antique example, taught to generations of economics students, illustrates the point. If England and Portugal trade wine and cloth, Portugal, because of its natural advantages, will end up as producer of wine, and England with its wooly sheep, as producer of textiles. Matters will never go the other way around

As this example illustrates, which country makes what product is generally uniquely determined in the classical economic model of trade

It is one of the most remarkable results of economic theory that this unique outcome, tend to be best for consumer welfare and productive efficiency in each of the countries involved. In particular it is always better than no trade at all

But today's world of industry contrasts sharply with the wine-wool example that is so typical of the past. In the world of the classical trade model, with its emphasis on natural advantage derived from climate or natural resources, it was difficult, for example, for England to become a substantial presence in wine production. However, in the modern world it is possible for many countries to learn the skills involved in making a product, and then to practice those skills until they approach the capability of the world's productivity leaders.

Where We Are Today

The modern world is characterized by substantial and rapid technological and industrial change. Success in industry today is more likely to be acquired than natural. It is more likely to come from manufacturing skill or service know-how, low wages, or technical knowledge, or a workable combination of these, than from any gift of climate or of nature. The ability to produce and market some good or service depends less on the presence or absence of mineral deposits and more on a superiority of learned abilities or, more accurately, on a level of learned abilities that, coupled with its wage level, makes a country a competitor in a particular industry. Then cheap goods transport in the form of container ships, or cheap bit transport in the form of fiber optic cables, makes those goods or services available anywhere in the world. Indeed the technical improvements in bit transport have by themselves ushered in the most striking examples of offshoring: those where the service now being provided from abroad is one that was previously provided only domestically because of prohibitive transport costs.

While superiority based on natural advantage provides stability in the industries where such advantages exist, industries whose method of operation can be learned and that do not require huge entry costs are subject to rapid changes in their competitive positions as new countries acquire the know-how or as technology makes far off countries near neighbors.

We have seen this in Asia. While there has been success in high tech industries, and Japan, in particular, has entered industries such as autos and semiconductors that are high-tech and have a high cost of entry, much of the Asian success has been based on much more mundane products. Clothing and athletic shoes are not hard to make. Television sets and many other electronic consumer products are not hard to assemble. And knowledge of assembly operations, for example, can be acquired. Call centers in do not call for skills that are hard to acquire provided the language skills are there. Often, multinationals, seeking low cost production sites, will create a plant and also train the workers. Once this know how has been acquired, plants in many Asian countries become competitive because of their generally low labor costs.

You cannot create natural advantages. Climate will be what it will be. *But in today's world you can create industrial advantages.*

Countries today can change their circumstances and can acquire (or lose) industries through rapid change of their capabilities in industries or the rapid change in the capabilities of others, or through the rapid change in technologies that effectively bring countries closer together. Every such change leads to a new outcome in international trade. The possibility of such changes and such new outcomes means in a changing world the free trade outcome is constantly changing. It is no longer either fixed or slow changing as it was in the time of Ricardo Any plant abroad, or for that matter more people getting better education in the U.S., or lower international rates for data transfer, results in a new free trade outcome.

Why Outcomes Matter and the Pattern of Outcomes

Why should we care about the existence of this very large number of possible free trade outcomes? We care because among these many outcomes, all of which are better than no trade at all, may have very different effects on the welfare of the different trading countries. There will be outcomes that are good for one trading country and bad for the other, and vice versa, some that are good for both, some that are bad and some indifferent.

In fact, though there is not time to discuss this in any depth today, these numerous possible outcomes are not random. They distribute themselves into a surprisingly simple and orderly pattern that makes visible their advantages and disadvantages to the countries involved. This pattern is spelled out in the book "Global Trade and Conflicting National Interests" by Professor Baumol and myself.

In its simplest form the pattern we see is this: if the wage differential between two trading countries is sufficiently large, the loss of industries from the higher wage developed country to the low wage underdeveloped country may well benefit both countries at the national level. However as the under-developed country develops and starts to look more like the developed one, we reach a turning point: further loss of industries, becomes harmful to the overall welfare of the more developed nation. although it continues to benefit the developing one.

What We Know and What We Don't Know

While we can make this qualitative picture quite convincing, the location of that turning point depends on a host of factors including country size, the nature of the

industries involved, and the fate of the displaced workers in the industries involved. Both present day theory and the availability of actual information leave us far from certain of the outcome in actual real world situations.

In the cases of India and China, which are rapidly evolving countries having vast underdeveloped areas and poorly educated populations as well as significant and growing sectors that are industrialized and productive, our best guess, based on very simple models is that they are approaching that turning point.

Multiple Outcomes - Increasing Productivity Abroad

The importance of multiple outcomes becomes most visible when we face changes at home that are the result of improvements in the productive efficiency and product quality of foreign industries. In these situations business and labor often hold opposing and emotional views as to what if anything should be done, and the views of the political parties or even successive administrations often diverge. Often the discussion it becomes far more than an abstract discussion about the effect of increased productivity abroad on the nation *as a whole*. With jobs and the fate of particular industries at stake, the concrete instances in which an industry is threatened by increasingly productive foreign competition become the focus of lobbying and intense political pressure.

Does an increase in the industrial abilities of a trading partner drive down our wages and impoverish our workers? Is it true that our consumers benefit when products that were once made at home become available more cheaply or in better quality from abroad? How do these conflicting consequences balance out? What is the net effect on our country's *overall* prosperity? These are obviously very real and very important issues. But we need to realize that our real ability to judge these outcomes is limited and that there is no simple overall rule that says a priori that these events are either beneficial or harmful when these effects all occur at once.

The Three Aspects of Each Outcome.

We should also bear in mind that there are at least three different aspects of any of these economic outcomes. First there is the local aspect, if jobs in some industry move overseas what happens to the people who had those jobs? This is the aspect that is most concentrated, most visible, and most easily understood in human terms. The second aspect is the effect on the country as a whole. This may be in the form of cheaper goods, or, as the terms of trade change, more expensive goods. It can be a large effect, but it is diffuse and tends to be spread across the whole population. Finally there is the effect not on the national economy, but on the total world economy. It is here that one would take into account in the case of offshoring, not only the effect on the U.S. economy but its effect on India or China as well.

Different outcomes can score differently on these different outcomes. You can have an outcome that is bad locally and good for the nation. You can have outcomes from productivity improvements abroad that are bad locally and bad for the nation as a whole. You can have an outcome that is good for one nation and bad for the other at a national level. And so forth.

Economic models such as the standard Ricardo model tend to shed light on the national and international effects, but not on the local effect. The local effect, the effect on jobs, is too detailed and different in different cases to really appear in these models.

This is one reason why the remarks of economists about long range or national benefits often clash with visible and local realities.

What Countries Do

Countries do act to get what they consider better free trade outcomes whether this is driven by the desire to protect existing industries or by a notion of general national development.

While the governments of some nations have successfully organized, cajoled, and even forced their home enterprises into entering existent high tech industries, many such efforts have not succeeded. Those that have achieved their goals are countries with a strong tradition of powerful government and an unambiguous history of industrial policy, plus a skilled and prestigious bureaucracy, able to carry out that policy. This is not an easy path. Another approach used both by foreign countries and U.S. states is to offer special incentive to firms to locate within their borders. These can be special tax treatments, access to markets or a host of other special provisions.

The U.S. tradition runs a different direction: The U.S. has had no conscious industrial policy, and its government bureaucracy has, with some exceptions, never aspired to a close, cooperative relationship with industry outside of the arena of national defense. Even if it were desirable, which is not clear, a path of very active government guidance of and collaboration with industry is probably unworkable for the U.S.

The U.S. tends to have more of a history of invention, of being in at the start of things. Its early role in electric power and telephones, automobile mass production, and the development of radio enabled the U.S. to be in on the beginning of these industries and to grow with them as they matured into major industries. That approach of being there at the beginning continues today in biotechnology, computers, software, and the Internet.

And although the U.S. has avoided any explicit industrial policy, it has nevertheless benefited from its support of higher education and its consistent support of basic research, an ongoing commitment of government resources that has helped the U.S. launch some of major modern industries and emerge with a commanding position in them. Recent examples are the biotechnology industry and, very recently, the vast array of electronic communications of the Internet. The U.S. may not have skilled and experienced government personnel charged to shape up an industry against an entrenched competitor, but it *does* have a long precedent of spending to encourage basic research and higher education, and this has helped the country to be in on the start of new industries.

These policies help less when the goal is to retain industries when they become are larger, more mature and more important. Helpful as it is to be in at the birth of an industry and to grow up with it, continuation of that strong position is not automatic. Semiconductors, steel, and automobiles are all examples of industries in which the U.S. had a major role from their earliest days. Those positions, at later dates, were subjected to major challenges.

The theory described in our book indicates that government actions, if successful, and if justified by the position of the country in the pattern of possible trade outcomes, can do more than serve the interests of the industry in question. Our analysis suggests there can be circumstances where the development or preservation of a particular industry can be in the *national* interest.

In addition to industry-specific approaches, there are actions that improve general conditions and thereby can help many industries to succeed. Government outlays on infrastructure, such as roads, or an advanced educational system, are not aimed at particular industries, but benefit many. Education today can mean not only education during the early years of life but also ongoing education of members of the work force. This has become possible because high quality on-line learning is now available and is compatible with continuing to work and earn.

While automation is often confused with offshoring or outsourcing because of its impact on jobs, it is in fact beneficial to the country as a whole and should be encouraged. While automation, like offshoring, can displace workers, its overall economic effect is totally different. Unlike offshoring, which can be either beneficial or harmful on a national scale, automation, or other capital improvements, add to the national wealth. The U.S. is a high wage country compared to many others because we dig trenches with backhoes while in many countries that work is done with shovels.

Country vs. Company

What is the effect of the activities of a multinational corporation on its home country? Suppose that one of an advanced nation's leading companies decides to build manufacturing capacity in a foreign country. It may do this for any of the reasons just mentioned: that country may offer lower wages with fairly high productivity, newly-built infrastructure, special governmental concessions to the company, good intellectual property protection, or access to new markets.

If that new capacity takes the form of a production facility, its establishment may send both knowledge and capital abroad. If the firm has chosen well and can produce cheaply and effectively abroad, the products made there may even end up returning as imports to the firm's own home country. This overseas investment decision may prove to be very good for that multinational firm. But there remains the question, is the decision good for its own country? The answer can in fact go either way depending on circumstances, but it is not always and automatically benign. There is and can be fundamental conflict between the goals of the company and the goals of the country.

It is important to realize that the problem of motivating companies is part of the problem. U.S. companies are required to make profits, that is what they are in business for, they are not in business to consider the national effect of their decisions about where to make their goods or services. They are obliged to consider the effect on profitability. Yet it is what the U.S. as a nation makes in goods and services that we have available either to consume or to trade for the goods we consume. Companies need to be profitable. If moving part of its operations overseas will help profitability they will do it; in many cases they will need to do it just to survive. If the country is at a point where further losses in producing goods and services is harmful to the country, that is not part of the company's calculation. We need to take this problem of motivation into account.

Conclusion

There can be inherent conflict in the interests of nations trading in a free trade regime. What is good for one is not necessarily good for the other. There can also be conflicts between the interests of corporations and their home countries.

However there can also be benefits from improvements in productivity abroad and there can also be benefits to the home country from the foreign activities of their corporations. It is simply not a simple picture.

We need to understand that there is much we do not understand. Deeper and more detailed knowledge of actual situations will help us to judge when various actions are beneficial at the national level, and we should make the effort to develop this if we are to be realistic rather than slogan-bound about international trade.

However it is important for the U.S. to realize that increases in productivity abroad can be harmful. If we do that and are not lulled by the idea that somehow in some long range sense this is all for the general good of the U.S. we will find many things to affect and improve the outcome. It is however a vital first step to come to that realization.