

Ralph E. Gomory

Research Professor

Stern School of Business, New York University, New York, N.Y.

Testimony before the U.S. – China Economic and Security Review Commission

Hearing on China's Five-Year Plan,

Indigenous Innovation and Technology Transfers, and Outsourcing

June 15, 2011

Thank you for the opportunity to take part in this hearing of the China Commission. The subjects that we are discussing today are closely related to the topics to which I have devoted much of my working life. For almost 20 years I was the head of the research effort of a major international corporation, (IBM). For the next 18 years I was the head of a major foundation (Alfred P. Sloan) deeply interested in science and technology. In addition I have been a director of several major corporations and for the last two decades I have devoted considerable energy to understanding and writing about the economics of trade.

Many of the questions you have proposed to this panel relate to China's efforts to move its people into more productive jobs where they can create more value for each hour worked, and to the means, ranging from foreign direct investment to direct acquisition of knowledge abroad, that China has used and will use to acquire the technical knowledge that is needed to produce that result. Explicit or implicit in many of the questions is also the question of the impact of these actions on the U.S. and the likelihood of their success in the future. A further implicit question posed is this: What can the U.S. do when these impacts are detrimental to the U.S.?

Summary

I will state here in short form what I will say in a more detailed way below. What we can expect in the future is simply more, and probably much more, of what we have seen to date.

What we have seen to date is this: rapid economic growth in China, coupled with a major negative impact of the imports of Chinese goods on the productive capability of this country. We have seen an enormous imbalance of trade as these imports are not balanced by a sufficient counter-flow of exports. In the U.S. we have seen greater corporate profits, accompanied by downward pressure on wages and employment.

While the inflow of cheaper consumer goods has been a benefit. That benefit, as we will show below, has come at too high a price.

It is also clear that U.S. global corporations, in their normal pursuit of profits, are strongly aiding these developments. Therefore it is time to realize *that the interests of our global corporations and the interests of our country have diverged.*

Without a major departure from current U.S. government policies, we can expect that that divergence too will continue.

Confusion Over Free Trade

Why is this happening when there is a strong and pervasive belief, especially among many of the most educated and influential, that free trade benefits everyone; that when you lose manufacturing, it is because your comparative advantage is somewhere else, and that it benefits everyone to allow market forces to shift you in the direction of your comparative advantage rather than struggle to keep what you once had.

This view represents a fundamental confusion. In most standard economic models countries have fixed capabilities. In this situation market forces will sort themselves out in the way described and the free market free trade result is beneficial. Unfortunately that does not answer or even address the question we are interested in: we are interested in the effect of changes.

What is the effect when a trading partner, in this discussion China, does not hold its capabilities fixed, but rather improves them? Let me state clearly here that economic theory does not say that when your trading partner improves its capabilities, and then market forces act on these new capabilities, that the new free trade result is better for your country than where you were before the change. In fact it can be harmful.¹

What standard models involving change do show, and this is the work that Professor Baumol² and I have been engaged in for many years (References 1 and 8), is this: That the initial development of your trading partner is good for you, but as your trading partner moves from a less developed to a more developed state, things turn around. Their further development becomes harmful to your country. Its impact is to decrease your GDP.

And this result takes into account all the effects. It includes the benefit to consumers of cheaper goods from the newly developed partner (in this case China) as well as the negative impact of losing productive industries in the home country (USA).

Consequently we cannot take refuge, as many do, in simply asserting, in spite of the evidence before their eyes, that China's development is good for the U.S. In fact it is more reasonable to say that theory expects it to have a negative impact with further economic development, and it is further development that is being discussed here.

China's Form of Mercantilism

¹ This has been pointed out by many distinguished economists, most recently by Paul Samuelson in Reference[7]

² Professor William J. Baumol, New York University

China's approach to trade cannot be described as free trade. It is traditional mercantilism, a pattern of government policies aimed at advancing Chinese industries in world trade, an approach that has many precedents.

The effect of mispriced currency, subsidies, and the rapid appropriation of foreign know-how allows many Chinese industries to appear on the world scene with prices and capabilities that would have taken decades (if ever) to attain without the aid of these practices. Professor Shih, who is testifying here today, has well described the destructive effect of these efforts on American industries in some of his writings (Reference 2).

A More Detailed Description

If we look more closely at the development of China we can see what U.S. corporations contribute. We see U.S. corporations, either alone or in joint enterprises with Chinese corporations, building plants in China that enhance both that country's productive abilities and its technical know how. We have seen the goods imported from these enterprises contribute largely to the enormous imbalance of trade since these imports are not balanced by a sufficient counter-flow of exports from this country. We see that today this has resulted in 2 to 3 trillion dollars at the disposal of the Chinese government for the purchase of more treasury notes etc. as in the past, or, as is more likely in the future, for the acquisition of companies and their technology.

In addition, we see U.S. corporations increasingly locating their research and development in China. This is a further and very direct way for China to acquire the necessary know how.

The Consequences

While many economists have been slow to realize that all is not well, we now have this from the Nobel Prize winning economist Michael Spence writing in a widely noticed paper: (Reference 3)

“Until about a decade ago, the effects of globalization on the distribution of wealth and jobs were largely benign Imported goods became cheaper as emerging markets engaged with the global economy, benefiting consumers in both developed and developing countries.

But as the developing countries became larger and richer,.. they moved up the value-added chain. Now, developing countries increasingly produce the kind of high-value-added components that 30 years ago were the exclusive purview of advanced economies.

The major emerging economies are becoming more competitive in areas in which the U.S. economy has historically been dominant, such as the design and manufacture of semiconductors, pharmaceuticals, and information technology services.

At the same time, many job opportunities in the United States are shifting away from the sectors that are experiencing the most growth and to those that are experiencing less. The result is growing disparities in income and employment across the U.S. economy,The U.S. government must urgently develop a long-term policy to address these distributional effects and their structural underpinnings and restore competitiveness and growth to the U.S. economy.”

Professor Spence reached these conclusions from a careful analysis of government statistics.

With this type of analysis of statistics as well as theory and the evidence of our own eyes, why do things continue unchanged? To see why we must look at the motivation of the American corporation.

Why Corporations Choose China

We might wonder why U.S. Corporations are playing such a strong role in the development of China when that it is likely to have a negative impact on the U.S. However this is a direct outcome of the present dominant beliefs of the two countries.

The Chinese government, as their five-year plan shows, is focused on having in their country the leadership of most major and growing industries. In the U.S. in contrast the dominant ideology is laissez-faire; there is a faith that the U.S. corporations, venture capitalists, etc. if left alone, will through the pursuit of profit create the greatest GDP for the country.

Such a complete hands-off policy was not in fact the belief in the earliest days of this country. Initially the mercantilist policies of Britain aimed to keep the colonies as suppliers of natural products while manufacturing and shipping were to the greatest extent possible reserved to the British. After the Revolutionary War, however, Alexander Hamilton urged, eventually successfully, the adoption of protectionist measures to shelter the start of manufacturing in the newly formed independent country.

There have been other periods of protectionism in our history, but most of the time the natural protection of great distance and poor transport has been enough.

Today, with container ships and optical fibers, we are in an entirely a different world. Today a global corporation can maximize its profits by sourcing its products or services wherever they can be obtained the cheapest, and sell them wherever the demand is greatest.

The Chinese government, as Singapore’s had done earlier, makes intelligent use of this motivation. Through direct subsidies, abated taxes, and mispriced currency they can supplement cheap labor to the point where China becomes the most profitable place to locate the industries China is interested in. China is also able to add to this the lure of a

giant growing market and to make, in practice, technology transfer a condition for market entry.

Our corporations, aiming to maximize profit and shareholder value, only hesitate at the thought that the companies they are helping to found might become their future competitors. But in the end it is not surprising that corporate leadership finds the bird in the hand superior to the two in the bush, since profits are reported quarterly, not every five years. Our present executive compensation policies for executives, strongly tied to stock price, then strongly reward these decisions.

Nor is there any strong reason for our corporations to believe that they are harming their country. Our own government, ignoring in practice Chinese mercantilist policies, has clearly supported the notion of free trade and has even in its official pronouncements supported the idea that outsourcing is good for the country.

Even the rapid decline of the manufacturing sector, which makes up a large part of international trade, has, until very recently, not caused many cracks in the wall of opinion and self-interest that protects the laissez faire status quo.

I want to make clear that our corporations themselves are neither greedy nor evil, though there are people who ascribe our problems to these qualities. In fact they are simply pursuing the widely accepted mandate of maximizing profitability. They are playing the game by the rules of the game. But in this game, as it is presently constituted, *the interests of our global corporations have diverged from the interests of our country.*

Rationalization of the Status Quo

I will not catalog here the many rationalizations that enable people to look at this scene and see nothing to worry about. I will, however, discuss one briefly – the notion of the “New Economy” since it appears so often. This is the idea that we in the U.S. don’t need dull jobs like manufacturing jobs, we will just do design and innovation and let other nations do the grunt work.

The poster child for this is the Apple iPhone. The iPhone was far from being the first smartphone but it was the one that finally got things right and the result was explosive growth. It is beautifully designed, a collection of parts from different areas of Asia, assembled in China. The high tech components come from Japan, Korea, and Taiwan, the low-tech assembly from China, and the whole can be sold way above the cost of the assembled parts because the designers finally got it right.

Advocates of the New Economy ask in essence - Why can’t our whole economy be like that? Why can’t the country design wonderful products for the world and let them be built in Asia and sold around the world?

There are only two reasons: One is that a whole economy like that is unattainable; the other is that a whole economy like that is undesirable.

Why is it unattainable? There are two things we must realize: first the huge profits are unlikely to last. Others can and do imitate. The Google Android has already edged ahead of the iPhone in the smartphone race. Second, events like the iPhone are rare; we will never have a country in which most of the companies are like today's Apple. Apple itself was not like today's Apple until it hit the iPhone. To imagine a country of Apples is somewhat like going to a baseball game and watching Babe Ruth hit three home runs and then turning to your neighbor and saying "I've got a great idea for a winning team, let's have a team of all Babe Ruths."

Why is it not desirable? Except for a small number of designers, and the retailers who sell the iPhone in the United States, most of the jobs are in other countries. The huge profits, while they last, benefit the shareholders; there is little contribution to jobs or wages in the U.S. Since most stock is held by those who are already wealthy (Reference 4), an all-Apple America would be a country of a few rich stockholders and a huge low-paid lower class.

There is no Royal Road to Prosperity

We need to get used to the idea that there is [no effortless road to prosperity](#). To prosper a country needs to make a range of good products and services, and then keep after them year after year, constantly learning, and improving their capabilities to stay with or ahead of competition. Many products and services of this sort are dismissed as "old hat" or even as "commodities" but many things we consume are of this type. Even commodities can be products or services of high value add per person. They may not be immensely profitable, [but profits are not the only thing](#). High value areas with average profit can contribute strongly to wages and to a widely distributed GDP. And maintaining technical capabilities in competitive areas allows entry into new industries as the technology advances and finds new uses and starts new industries (References 2 and 6).

What Can Be Done to Change this Downward Direction?

I will not discuss here the usual suggestions about better education and more R&D. Proposals of this sort about education and R&D can be helpful. They can only be harmful if they create the mistaken belief that these measures alone can deal with the problem.

The main thrust of this testimony, however, points to the divergence of company goals, focused almost exclusively on profit, and the broader goals of greater GDP and less inequality in the United States. Therefore, we need to turn our attention not only to the familiar suggestions I have just listed, but also to the issue of better aligning corporate and national goals.

Aligning Country and Company

We need to consider a U.S. national economic strategy that includes incentives for companies to have high value-added jobs in the United States. If we want high value-

added jobs, let us reward our companies for producing such jobs - whether they do that through R & D and advanced technology, or by just plain American ingenuity applied in any setting whatsoever.

The Asian countries have attracted companies by individual deals with individual companies. We do not have either the tradition or the knowledge or the inclination in the U.S. government to do that. An approach that is better suited to what the United States can do is to use the corporate income tax. We have already used the corporate income tax to spur R&D, so let us use it to directly reward what we are aiming at: High value-added jobs.

One way to do this is to give a corporate tax deduction proportioned to the value added created in the U.S. by a company. Consider two equal size companies, one chooses to send half its work overseas; the other keeps the work in the U.S. The second company will receive double the deduction on its income tax that the offshoring one receives. The effect can be made as strong or as weak as is desired.

Clearly this is only one possibility, if we think in this direction we will find many others.

Balancing Trade - Controlling our own Destiny

If the imbalance of trade continues there is nothing to stop the current trend of transferring ever more wealth and power to foreign governments to balance the import of underpriced foreign goods. On the other hand, if trade is balanced, the value of goods imported is matched to the value of goods exported from the country; and those goods and services are provided by jobs in the U.S.

Balanced trade is necessary if we are to control our own economic destiny. Without it China or other countries can simply pick the productive industries they want to have as their own country and take them over through the usual mercantilist tactics of subsidies, special tax concessions, etc. while accumulating the resulting flow of currency for future use.

What the [trade model](#) alluded to earlier also shows is that the ideal position for a country is in fact to be the producer in the most productive industries, while leaving a certain proportion of others to its trading partner. This provides a high standard of living for the country that succeeds in doing this and a much lower one for its trading partner. At present China is the country headed in that dominating direction with its five-year plan, and we are the candidate to be the poorer trading partner with our laissez faire policies. This outcome can be avoided if we prevent these takeovers and keep a substantial proportion of productive activities for ourselves. But this requires balanced trade.

There is of course a litany of approaches to balancing trade ranging from jawboning to tariffs. Tariffs are often dismissed out of hand by economists because of the possibility of retaliatory tariffs from other countries. I only observe here that the approach well

described by Warren Buffet (Reference 5) has the remarkable attribute that, if adopted by others as a retaliatory measure, the result is not the destruction of trade, but only balanced trade.³

Balanced trade is essential, it can be attained, but at present it is not a recognized goal of either Congress or the Administration.

On Departing from the Status Quo

Changing the direction we are now headed in will be difficult. Wealthy and powerful segments of our society benefit from the status quo and that includes the leadership of our major corporations, much of Wall Street and many others to whom the both the Federal legislature and the Administration turn for advice and political contributions..

Conclusion

To deal successfully with the effect on this country of the rapid industrialization of China, our government needs to take steps to better align the goals of our corporations with the aspirations of our people.

In a globalizing world where nations such as China advance their national interests with well thought out mercantilist policies, it becomes essential to balance trade if we are to control our own destiny. This too calls for new government policies.

I am grateful to the members of the China Commission for inviting me to contribute to their thinking on these matters.

References

[1] Ralph E. Gomory and William J. Baumol, *Global Trade and Conflicting National Interests*, MIT Press, 2000

[2] Pisano, Gary P., and Willy C. Shih. "Restoring American Competitiveness." *Harvard Business Review* 87, nos. 7-8 (July - August 2009).

[3] Spence, Michael, "Globalization and Unemployment", *Foreign Affairs*, June 2011

³ In fact, a bill based on the Buffet approach was introduced into the Senate by Senator Dorgan and Senator Feingold in 2006. The bill was S.3899, "The Balanced

[4] Edward N. Wolff, "Recent Trends in Household Wealth in the United States: Rising Debt and the Middle-Class Squeeze - An Update to 2007", Working Paper No. 589. Levy Economics Institute of Bard College

[5] Buffett Warren and Loomis Carol J., "The Nation's Growing Trade Deficit is Selling the Nation Out From Under Us", *Fortune Magazine*, November 10, 2003

[6] Grove, Andy, "How America Can Create Jobs", *Bloomberg Businessweek*, July 1, 2010

[7] Samuelson, Paul, "Where Ricardo and Mill Rebut and Confirm Arguments of Mainstream Economists Supporting Globalization", *Journal of Economic Perspectives*, Volume 18, Number3, Summer 2004

[8] Ralph. E. Gomory and William J. Baumol, "A Linear Ricardo Model With Varying Parameters," *Proceedings of the National Academy of Sciences, U.S.A.*, 1995, Vol. 92, pp. 1205-1207.

