## Trade, Outsourcing, and the Future of the U.S. Economy

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The normal view that one gets from economists about outsourcing is "not to worry"; outsourcing is just another form of trade. Since trade has benefited, not hurt, the US in the past, we should not worry; the market will take care of us. While outsourcing hurts some people, the large majority of the population benefits. While there is much insight and truth in that position, I am less sanguine about what is currently occurring. In my view, it is suggestive that the US is now, or will in the next decade, entering into a period of long run relative structural decline, which will be marked by a continued loss of good jobs and economic malaise. These are long-run predictions—it's the trend direction of the U.S. economy; economic theory has little to say about shorter run issues.

I base my long-run prediction on the law of one price, which is a central law of economics. It can be easily stated: it is that "equal goods" will eventually sell for the same price and that "equal factors" will eventually receive equal pay. Since "equal goods" and "equal factors" are ambiguous concepts, there is a certain degree of interpretation in these laws, which is why economists can come to different positions on their interpretations.

For example, the law of comparative advantage (which is the law that economists normally refer to when discussion the implications of trade) is based on the law of one price, but in its normal interpretation it assumes highly limited capital, social institutional, and technological mobility. When Ricardo first fully articulated this law, those assumptions were probably reasonable; today they are less so. Technological changes have made each of those assumptions questionable, especially if one is considering long run tendencies as I am here. When capital, social institutions, and technology are fully mobile, then the law of one price reverts back to wages: it states that workers of equal ability will ultimately receive equal pay. To the degree that they do not, forces will be set in motion to see that eventually they do. I emphasize the eventually, because in the short run, and even the intermediate run, the forces of competition and arbitrage upon which the law is based can be overwhelmed by institutional factors. These institutional factors, along with geographically centered dynamic effects, can push an economy in the opposite direction, giving people a belief that the law of one price will be repealed. That's what happened in the late 1990s New Economy period. That period was, in my view an outlier.

What we're now seeing with the jobless recovery is, in my view, a better indication of things to come. The reason is that the businesses I talk to consider Chinese workers, and, to a lesser degree, workers in a variety of other developing countries, close to U.S. workers, and that view, combined with the law of one price will create strong pressures for real wage equalization. The standard economic answer to this question is education; U.S. workers are better educated than foreign workers and thus can earn a significant premium. I'm not so sure; the businesspeople I talk to are less concerned by specific years of school that they are with attitude, ability to adapt to new ways of doing

things, reliability, and job specific training, which is not necessarily reflected in indexes of education based on years of formal schooling. The businesspeople I talk to believe that there are significant numbers of appropriately trained individuals in China, India, and other developing countries, so education is not a differentiating factor. Even if it is partially true, educational differences cannot support the enormous wage differentials that current exist internationally. So the law of one price predicts that wages will converge significantly over the coming decades, which means that any discussion of the future of the U.S. economy has to be conducted within that framework.

There are, of course a number of provisos. The workings of the law of one price depend enormously on capital, technological and institutional environment transferability. But again, based on my discussions with businesspeople, transferability of each of these seems a reasonable assumption. It is true that U.S. firms are still currently hesitant, because of political issues, to place too much production outside the U.S. They do so nonetheless because they feel that if they don't, they will be left out of the Chinese market, and that firms based in other countries will, even if they don't. So, assuming the political and social system remains stable in China, we can expect outsourcing to increase significantly over the coming decades, and the law of one price works its way through the world economy. As this happens the technological and capital differences between the U.S. and China will become smaller and smaller, making the equilibrium difference between U.S. and Chinese wages less and less. (I use China to simplify the discussion; there are numerous other countries out there which will be exerting the same pressure on various levels of U.S. business and jobs.)

While there are lots of "ifs" and "buts" involved, what the law of one price means is that for the U.S. to maintain its standard of living over the coming decades, it must do so within an overall structural setting in which simultaneously the law of one price is exerting forces to bring up a labor force at least 10 times its size up to its level. Chinese workers who currently get 60 cents an hour must be getting \$12.00 an hour, U.S. workers currently getting \$12.00 an hour must reduce their wage to 60 cents an hour, or some combination of the two. Assuming average Chinese real wages grow at 6% per year in U.S. dollars, U.S. wages can rise by about 1% per year if the equalization occurs over a 50-year period. The lower the growth in Chinese The faster the equalization, and the slower the growth of Chinese wages, the slower the growth of the real wage in the U.S. Until that equalization happens the law of one price will continue to be sucking away at U.S. jobs and U.S. production, a sucking that will slow U.S. growth and cause economic malaise in the U.S. for decades.

The "optimist" argument against this view, as I understand it, is inductive. It says look, this process has been going on for a long time, and it has helped us, not hurt us, so why should the future be any different. Trade is not a zero sum gain; it creates additional jobs; as you loose comparative advantage in one area, you gain it in the other; that's principles of economics 101. So while the U.S. will lose jobs through outsourcing, it will gain high-level jobs producing sophisticated products through in sourcing. According to this view the new movement of service jobs is just another form of trade. (Although if you're a Chairman of the Council of Economic Advisors you had better be careful in making the argument)

Having had Ec. 101, and having written a 101 text, I understand this argument, but understanding them does not alleviate my basic pessimism. My problem is that the law of one price applies to high-level jobs producing sophisticated products just as it does to low-level jobs, and until the wages equalization occurs, we can expect pressure on all jobs and production facilities. When thinking inductively about the implications of trade for an area, my thoughts move to the experience in my upstate New York hometown of Jamestown, New York over the last 50 years. Jamestown has fallen upon hard times; its population has declined by almost 50% and it has experienced economic malaise as the law of one price has worked its way through the economy. Wages are lower there, but not enough to drive development, and much of the dynamic youth moves away. I see the U.S. now in the same position that Jamestown was 50 years ago, and in 50 years, I see a high probability that the U.S. will be in the same position that the Jamestown is now, with a moribund economy, limping along.

To understand my reasoning, one must understand three points relevant to the question of why some areas benefit more from trade than other areas. The first point is that production is best seen not a single activity; but as a multilayered process, and that trade generally occurs only in a portion of that production process. For example, production can be divided into resource extraction, manufacturing, planning and organization, research and development, financial services, advertising, and distribution among others. These various layers that are tied together in complicated ways. My point is that trade does not involve the movement of an entire production process; instead it involves movement of some sub level of production. Technological developments in transportation, such as computerized container shipments, and in telecommunications, such as the Internet, are allowing the processes to be divided up more and more finely, and are making an increasing portion of the production process a tradable rather than a non-tradable. As it does, the nature of non-transferable advantages in production decreases, and the pressure for factor price equalization increases.

This point is important because the effect of trade on a geographic area depends on both its position in that multilayered process, and the percentage of the production process that is geographically located in that geographic area. Over the last 75 years, the U.S. has had much of the levels of production based in the U.S. In such an environment, trade benefits the U.S. enormously because the economic activity it generates occurs in the U.S. Thus, for example, when U.S. outsourced resource extraction, or even manufacturing, the large majority of the value added still accrued to U.S. based factors. When \$60 Nike shoes are manufactured in China for \$6.00, that means, assuming all other aspects of production are in the U.S., that \$54 dollars of value added production is generated in the U.S. The workers making shoes are hurt by such trade, but the U.S. as a whole benefits strongly as the major benefits of the trade accrue to the other levels of production. The more levels of production in a country, the more trade helps that country.

My second point is that the development of production processes in a geographical area requires enormous setup costs, which will initially significantly slow the working of the law of one price. This tends to keep production in geographic areas where it initiated. The geographic distribution of production has inertia that can only be overcome by incurring setup costs. These costs, however, are one time, not continual

costs, and once incurred, they are no longer impediments to trade. Thus, once the setup costs have been undertaken the past experience with trade may not be a good predictor of the future experience with trade.

My third point is that the benefits of trade in an area are equalized throughout that geographic area, and will be spread to nontradables and geographically fixed factors of production. Thus, the nontradable costs of production of tradables will be higher in those areas that have been previously successful in trade than they are in areas that have not been. Thus, once the setup costs have been undertaken, the cost difference of production between areas will be much larger than they will eventually be. This means that a worker in China can currently exist on 60 cents an hour, whereas a worker in the U.S. would have a hard time existing on \$8.00 an hour. Only when non-tradable wages and prices have adjusted will tradable wages be able to adjust.

Taking these three issues into account, I see the past experience of the U.S. with regard to trade to be a poor predictor of the likely future U.S. experience with trade. The reasons are (1) the proportion of production in the U.S. is declining; as the proportion of production related to trade in a geographical area declines, the positive effects it gains from trade decline, (2) setup costs have been incurred; as the setup costs to develop production facilities elsewhere are incurred, that the future gains from trade in a geographic area will be smaller, and (3) because of institutional rigidities of prices of non-tradables which do not experience the direct effect of the global competition, the prices of tradable in an area will be unlikely to adjust fast enough, even with exchange rate adjustments, to mitigate the effects of that trade on output.

The U.S. still has some strong comparative advantages. It has inertia, geographic and resource advantages, a strong social and political infrastructure, enormous wealth, and a population that still controls much of the residual benefits of trade. So collapse is not imminent, and we might even have some very positive years over the next decade. But the law of one price will continue to chip away at it. Technology is placing an increasing amount of production in play, and as it does so, more are more areas in the U.S. will be hurt by trade. As the proportion of production tied to the U.S. continues to decrease, less of the residual gains from trade will accrue to the U.S. As opposed to Nike shoes being split 1/10<sup>th</sup> to 9/10<sup>th</sup>, it will be 20-80%. As that split will continues to decrease the benefit of trade accruing in the U.S. will become less and less.

Eventually, the process will reach a tipping point, when the majority of the benefits to trade will no longer be accruing the U.S., but to other countries. At that point we will see *outsourcing turned on the traders and the outsourcers themselves*, and the U.S. will experience a large sudden loss in benefits of trade. As the income from those organizers of trade accrues to countries outside the U.S. the secondary benefits of the trade spill over in a larger degree in those countries where the organizers of trade live. At that point, the U.S. is no longer the world economic leader.

As the process of adjustment occurs the U.S. real exchange rate will fall, and as it does our competitiveness will improve, but with wages of 60 cents in China and \$12 here, and the sheer size of that Chinese, Indian, Bangladeshi, and similar workforces, the

25% fall in the value of the dollar that we've seen is only a small portion of the fall that must take place before the pressure from the law of one price will be abated. Over time, at current nominal wages in China and India, the real exchange rate of the dollar will have to fall something more like 60% to 80% if the underlying process of job loss were going to be halted. An exchange rate adjustment of that magnitude will cause serious structural problems in the U.S. because it isn't only real wages of those in the tradable sector that must fall; it is also real wages of nontradables, such as legal services and financial accounting services. Many of these, however, are structurally difficult to reduce, because of built-in legal and social monopolies that protect them. Thus, I see the exchange rate adjustment process leading to significant inequality and social unrest. The problem is that globalization and exchange rate movements put unequal pressure on various sectors, and in doing so create strife and undermine the social institutions upon which the fabric of the U.S. economy is built. If they do so the stability of the system is challenged, and may be undermined.

All is not lost; a number of factors will continue to prop up the U.S. economy in the short-term future. The first is the trading convention that English is the language of business and academics. That convention gives the U.S. what in my mind is its biggest comparative advantage, and will keep U.S. wages above world average since it reduces competition at higher-level jobs where subtle knowledge of language plays an important role. The second is the legacy of past U.S. hegemony. U.S. citizens are the residual claimants of much of the production gains of trade—in terms of patent, copyrights, and intellectual property rights. Residual claimant income flows back to the U.S., which means that it is spent in the U.S. creating jobs servicing those who gets it. Many of these jobs have been filled by immigration, which is another way in which factor price equalization occurs.

But as the outsourcing continues, the relative gains from trade accruing to the U.S. will become relatively less and less. Eventually, the outsourcing will occur at the management and "job-cutters-outsourcers" level. At that point, *the outsourcers become outsourced* and the residual claimants will geographically move, which means that additional outsourcing will result in far less U.S. geographically specific demand for services.

Once we get to the point where we are outsourcing the outsourcers, the world economic power will shift out of the U.S. and toward other countries such as China. At that point the value of the dollar goes into almost free fall. There is, of course, an equilibrium here, but it is an equilibrium in which the much of the U.S. becomes the world equivalent of a Jamestown, languishing in slow growth and economic malaise as the world economy grows.

Let me conclude by saying that my assessment of the long run future of the economy does not lead to protectionist arguments; the law of one price is a powerful force; tariffs and other protectionist elements are too weak to stop it, and will likely make it worse, since it will prevent U.S. companies from competing globally. These policies might make some short-run difference for good or bad, but they will not make a long run difference. It is like putting your finger in one hole of a crumbling dike.

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Instead, the policy conclusion I come to is that what the U.S. must do is to prepare for the coming period of decline relative to the world, by increasing its competitiveness on all levels. We need to break down internal monopolies that protect nontradable wages, and add significantly more internal competition to the outsourcers and traders. The U.S. must become leaner and meaner if it is to remain competitive. If these areas do not increase their competitiveness, the last remaining stronghold of the U.S. economy—the outsourcing branch of the U.S. economy—will itself be outsourced, as Chinese and other foreign firms with residual claimants outside the U.S. replace current firms as the economic engines of the world and the residual claimants of the benefits of trade.

What are the chances of such a pro-competitive policy? I suspect close to nil, which is why I remain rather pessimistic about the long run future of the U.S. economy.