Outsourcing: three long run predictions

Gloria González-Rivera

Department of Economics, University of California,
Riverside, CA 92521, USA
E-mail: gloria.gonzalez@ucr.edu

Abstract: We argue that exporting jobs – outsourcing is a market-based mechanism that has the potential to distribute wealth and raise the standards of living around the globe. International trade theories dictate that countries will attain mutual gains when they export those goods for which their relative costs of production are comparatively lower. A low wage environment is the Ricardian 'comparative advantage' of developing countries. We predict that

- the labour supply of a developing country will become less elastic in the long run as a new worker, who demands social protection, emerges.
- world labour markets will become as efficient as the present world capital markets since qualified labour has become a mobile factor of production.
- outsourcing will bring political reforms to the existent international organisations, which should add to their agendas, the tutelage of the welfare gains indirectly brought by outsourcing.

Keywords: comparative advantage; globalisation; welfare gains; international institutions.

Reference to this paper should be made as follows: González-Rivera, G. (2005) 'Outsourcing: three long run predictions', *Global Business and Economics Review*, Vol. 7, Nos. 2/3, pp.226–233.

Biographical notes: Dr. Gloria González-Rivera is Associate Professor and Chair of the Department of Economics at the University of California, Riverside. She received her PhD in Economics from the University of California, San Diego, working under the direction of the 2003 Nobel laureate Professor R.F. Engle. She was also a Senior Economist in the Financial Research and Housing Economics Department at Freddie Mac. Her research deals with the development of econometric methodologies for the analysis and forecasting of economic and financial data. She is an expert in the modeling of volatility and risk. She is interested in the formation and integration of markets in developing economies.

1 Trade is beneficial for all parties

Trade is a practice as old as mankind. From the bartering activities of a primitive society to the monetary exchanges of a sophisticated economy, trade is ingrained in human behaviour as the mechanism that links people's interests, taste, and abilities for the betterment of the engaged parties. Trade, though so natural to people, was not rationally explained until the advent of the treatise "On the Principles of Political Economy and Taxation" in 1817 by the famous economist David Ricardo. His most significant contribution – the law of 'comparative advantage' – explains why countries can derive mutual gains when they specialise and export those goods for which their relative costs of production are comparatively lower. Ricardo argued his theory based on the case of England and Portugal producing wine and textiles. Even if Portugal produces wine and textiles more cheaply than England but Portugal has a comparatively lower relative labour cost of wine production than England, it is of interest to Portugal to specialise in the production of wine and export it to England, which in turn will specialise in textile production and export it to Portugal. On trading textiles for wine, England and Portugal will attain mutual benefits.

2 Trade and outsourcing: what is new?

The debate on outsourcing is again a debate about the advantages and disadvantages of foreign trade. At its core, it deals with the export of labour intensive jobs to mostly developing countries that offer a low wage environment. Bardhan and Kroll (2003) reported that the hourly wage of a telephone operator in India is less than $1 while in USA is $12.57. The average salary of a high end software engineer in India is $11,000 and in USA $80,000. Relative labour costs imply that an innovative engineer should be hired in USA and a telephone operator in India ($80,000/$12.57 is less than $11,000/$1). Exploiting this comparative advantage is the Ricardian answer that justifies moving call centres to India and hiring the most innovative engineers in USA. Then, what is new today?

First, the commodity in play is a factor of production and not a final product like the Ricardian textiles and wine. Traditionally, trade has been understood as the exchange of final and intermediate goods. In USA, imports of manufactured products (cars, appliances, clothing, toys, etc.) and high tech products (computers, electronics, etc.) have experienced a continuous rise. Bardhan et al. (2004) estimated that the share of imported components used in high tech manufacturing has increased from 26% in 1987 to 38% in 1997. Manufacturing has been outsourced now for a long time to countries such as China, Mexico, Taiwan, and South Korea. However, the outsourcing that started in the late 1990's is characterised by the import of labour. US firms hire foreign workers in their own land. There is not physical movement of people but nevertheless there is importation of virtual labour, a factor of production that not long ago was considered less mobile and constrained by national institutions.

Secondly, this exchange can take place because the developed economies, largely based on the service sector, have created production processes that can be fragmented into smaller processes. Business practices have been standardised to the point of creating routine and repetitive tasks which require, for most part, a low skill level. These are the processes that have been outsourced (Drezner, 2004). Their set up is relatively low cost; US firms do not encounter major barriers in the foreign land and they benefit from the relative wage differentials between developed and developing countries for low skill and labour intensive occupations. Consequently, US capital in foreign lands becomes more productive by increasing the US firm's overall return on investment. This new outsourcing has taken place in business services such as customer service, call centres, internet services providers, telemarketing, and financial services, and in business processes such as computer operators, data processing, accounting and payroll services, medical transcription, internet publishing, software publishing, and tax preparation (The Economist, 2004).

Official figures on outsourcing are difficult to obtain because there is no government agency to track and monitor outsourcing activities and their effect on the national economy. The Bureau of Labor and Statistics estimated that, in January–March 2004, 4,633 private sector workers lost their jobs due to global outsourcing. However, Bronfenbrenner and Luce (2004) reported that this figure is grossly underestimated and that the number of jobs lost due to global outsourcing (manufacturing and service sector) in the first quarter of 2004 was 45,504 jobs. The same authors have estimated that 4,06,000 jobs were lost in 2004 due to outsourcing activities. Forrester Research predicts that by 2005 the number of outsourced jobs in the US service sector will be 8,30,000 and that by 2015, 3.3 million service jobs will be outsourced. Bardhan and Kroll (2003) have estimated that the number of US jobs at risk to outsourcing is about 14 million or 11% of the total 2001 US employment.

Thirdly, the scale of the phenomenon goes beyond neighbouring countries and links far away lands with the potential to form one global labour market, regardless of the many and diverse national political identities. While US manufacturing outsourcing has had as primary destinations China and Mexico, the US services outsourcing has been directed mainly to India. In January–March 2004, India was the destination of 39% of the US communications and information technology outsourcing and 88% of the outsourced US finance, insurance, and real estate sectors. Globally, in January–March 2004, India was the destination of 70% of the world's outsourcing activity in the communication and information technology sector (Bronfenbrenner and Luce, 2004). There are already signs that information technology outsourcing is also moving towards China, Eastern Europe, and the Philippines as the Indian labour markets are becoming tighter, mainly in relation to the supply of IT engineers.

These three features – mobility of labour, fragmented production processes, and large scale globalisation- are the results of technological advances in the 20th century such as the maturity of the aviation industry, the telecommunication revolution with the creation of virtual offices (capital has created a virtual mobile labour force) and diffusion of information through the internet, and, last but not least, the prevalence of western educational systems with English as the language that delivers scientific advances, businesses practices, and commercial transactions.

3 Outsourcing as a mechanism for wealth distribution and social gains

Let me state, at the onset, the claim that will be argued in the forthcoming lines: exporting jobs is a market based mechanism that has the potential to distribute wealth around the globe. We are witnessing a service revolution promoted by the developed world that will benefit the developing nations. Private enterprise may achieve results that neither the World Bank nor any other international institution could have achieved. However, this is not a plea for the hegemony of free markets; there is still an important role to play for the national governments, for the present international organisations, and for the potential creation of new ones.

Outsourcing or exporting jobs has moved in only one direction: from developed to developing countries. Companies that aim to increase profit margins and to raise the rate of return on their investments monitor the cost of their production factors: labour and capital. With the lowest cost of capital that the world economy has witnessed in the last fifty years, companies that aim to increase profit margins look for a reduction in the cost of labour. Why, in developed economies, is labour expensive? The primary economic argument is high productivity. However, in developing countries the labour force can be equally productive for the type of jobs that have been outsourced. For instance, think about the telephone operator or the telemarketer for whom the length of the call is well scripted. Thus, the time spent on carrying the call will be the same whether the telemarketer is located in a developed or in a developing country. Then, why is the Indian operator making $1 per hour and the American operator $12.57?

It is reasonable to think that the labour supply is more elastic in a developing country than that of a developed country, in particular for occupations that require low skills. Nevertheless, there is an even more important and striking difference between the labour markets of developed and developing economies: the social protection of labour. National pension systems, unemployment subsidies, protective hiring practices, health insurance provision, minimum wage laws, progressive tax codes, institutionalised trade unions, are elements of a welfare economy that greatly contribute to higher labour costs. Are these reasons for outsourcing? The empirical evidence seems to support this claim. Union jobs are a good proxy to measure the welfare component of wages as they include good health benefits and pension plans. Bronfenbrenner and Luce (2004) reported that there is an upward trend in the number of unionised jobs that have been outsourced. In the first quarter of 2004, they estimated that 53% of the outsourced jobs to Mexico, 34% of the outsourced jobs to China, and 17% of the outsourced jobs to India were union jobs. These rates are much higher than the unionisation rate in their respective industries. The same authors documented instances in which the threat of outsourcing was waged to obtain concessions from the trade unions in the negotiations of contracts.

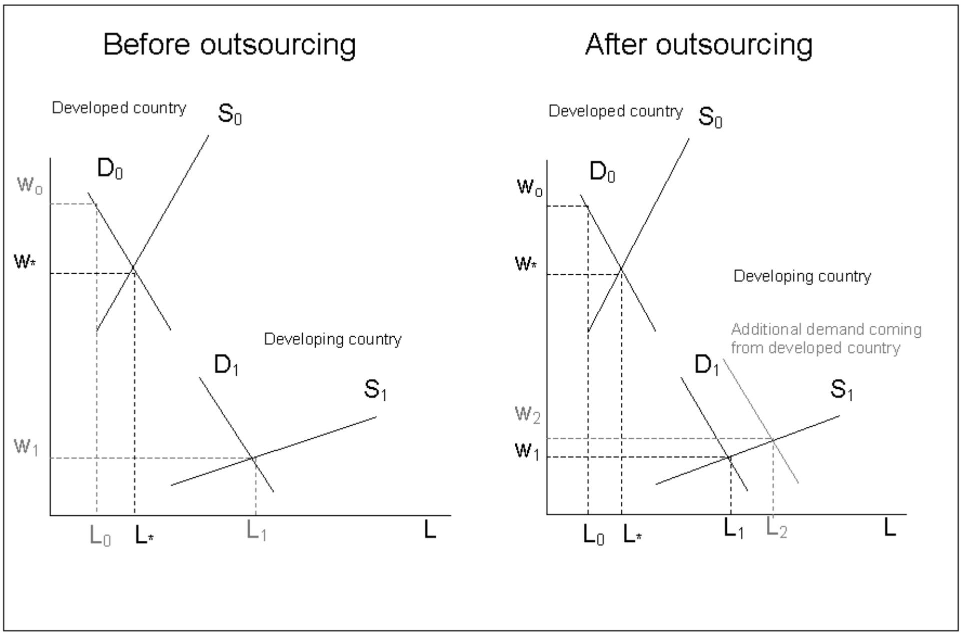
These numbers offer compelling evidence to support the claim that developing economies are able to provide a lower wage structure because, to a great extent, they lack these institutional arrangements. A low wage environment is the Ricardian 'comparative advantage' of developing countries, and consequently it is to their advantage to export man hours (import jobs); whether the worker is located close by or far away is irrelevant as far as the low wage environment can be maintained. However, this advantage is not sustainable in the long run. Let us understand why.

4 The short run and the long run views of outsourcing

In a stylised form, Figure 1 presents the labour markets for a developed and a developing economy. The downward sloping lines, labelled *D*, are demand schedules; firms will demand more labour when wages are lower. The upward sloping lines, labelled *S*, are supply schedules; workers will supply more labour when the salaries are higher. The developed economy has the highest wage w_0. At this level, workers would like to supply more labour but the employers will be only hiring at the level L_0 (follow the dash lines in panel 'Before outsourcing'), though they would like to hire L_*. If the wage were to decrease to w_*, employers would be able to hire L_*. However, if wages remain at the high level w_0, the firms will need to shift their demand to a country with a qualified labour force, but with lower wages.

We have some empirical evidence on the disequilibrium pictured in Figure 1. Bardhan and Kroll (2003) documented wage differentials ($w_0 - w_1$) for different occupations in India and USA. We have already referred to the 2002–2003 salaries of telephone operators (about 12 times more expensive in USA) and programmers (about eight times more expensive in USA). Further examples are: hourly wage for an accountant in India is \$6–\$15 and in USA \$23.35; payroll clerks earn \$1.50–\$2.00 per hour in India, and \$15.17 in USA. A more difficult task is to assess how much of the unemployment ($L_* - L_0$) is due to outsourcing. According to the unemployment figures provided by the Bureau of Labor Statistics (2004a, 2004b) between 2001-Q1 and 2003-Q2, there was a loss of over one million jobs (or 15.5% drop in employment) in those occupations selected by Bardhan and Kroll at risk to outsourcing. Though the job loss during those years may be due in part to the US recession, the economic recovery that has been taking place since 2003 has been accompanied by a sluggish job creation. It is sensible to assume that outsourcing has also contributed to the slow pace of job formation.

Figure 1 Labour markets in developed and developing countries before and after outsourcing

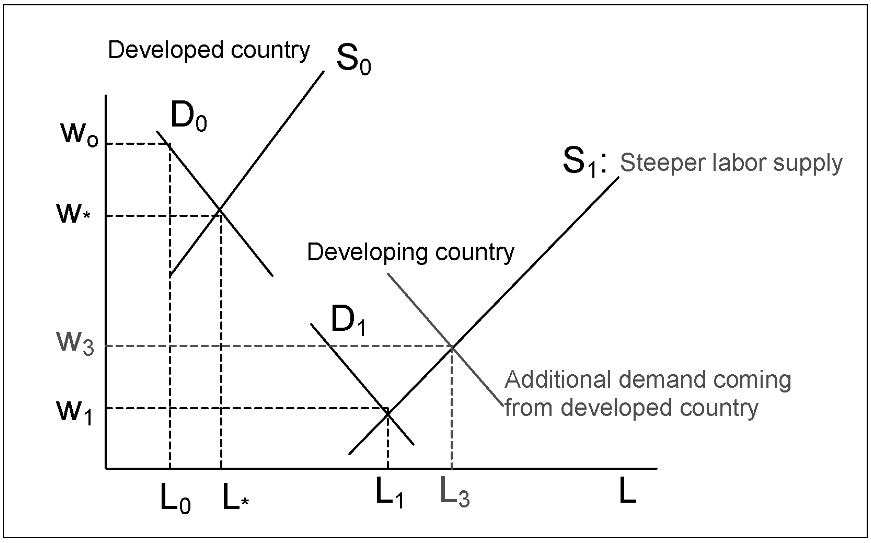


Going back to Figure 1 and simplifying matters, let us assume that the demand schedule is the same for the developing and the developed economy. We focus on the differences in the supply schedule. In a developing economy, the supply schedule is flatter (more elastic) than that of a developed economy. This means that workers in a developing economy need very small increases in wages to be willing to supply labour. When wages are low, any small increase produces a much higher utility to the worker than when wages are high. When the firms outsource jobs to the developing country, they push up the demand for labour, but because the supply schedule is flatter, they are able to hire the needed labour ($L_2 - L_1$) with a very small increase in wages (from w_1 to w_2, just follow the dash lines in panel 'After outsourcing'). Note that this increase in wages will affect not only the additional workers but also the total labour force.

Workers with higher wages will demand higher standards of living; not just more goods and services but also more social protection, moving in the direction of a developed economy. New consumption can potentially become the engine of new production, which in turn may foster further economic and social growth. These spillover effects are not constrained to the specific outsourced sector but have wider ramifications as new infrastructure will be needed, which will benefit the entire country. For instance, the real estate sector is booming in China and in some urban areas in India.

Figure 1 has described a sequence of events in the short run. What should we expect in a longer term? With a more developed economic environment, we should witness more sophisticated workers, who now far from subsistence levels, will be able to understand the opportunity cost of additional work – leisure- and the effects of progressive tax systems on the labour supply. In Figure 2, the supply schedule of the developing country has become steeper to reflect the 'new' workers, who will need higher salaries to entice them to offer additional labour. Outsourcing firms that need the extra labour ($L_3 - L_1$) are required to pay a higher salary w_3 (follow the dash lines in panel 'Some years after outsourcing'). However, there is a limit to outsourcing. The incentive to outsource will remain until the total cost of labour in the developing country ($L_3 - L_1$) w_3 plus the cost in the developed country ($L_0\ w_0$) is less than the cost that the firms would have paid if they had been able to hire at the level L^* with a cost of $L^*\ w^*$, assuming equal productivity across countries. In the long run, the incentive to outsource to a given country will disappear and companies will move to other places with lower wages and flatter supply schedules but, by that time, private enterprise would already have created a path to economic and social development somewhere in the developing world.

Figure 2 Labour markets some years after outsourcing



5 There are unavoidable costs to outsourcing but also opportunities

From a historical perspective, we are witnessing a second revolution, the service revolution. In the 19th century, England pioneered the industrial revolution planting the seed of the capitalist systems of the western world. Two centuries later, United States of America is pioneering the service revolution. USA is exporting jobs with new ways of production to the world in ways that, potentially, can be more humane than the primitive ways of the industrial revolution. However the process is not free of frictions. As with any revolution, there are always forces resistant to change; societies are risk averse and tend to favour the *status quo* against the uncertainty of even the best and well planned visions for the future. As with the passage from an agricultural to an industrial society, the move from an industrial to a service society brings social and economic costs that, at least in the short run, are unavoidable but that can be softened out by proactive governments. In the developed nation, outsourcing is criticised as a devil that should be stopped because it steals national jobs. This is a reality that, in the light of the above arguments, could be fixed by depressing the existent wages. But, is that possible? I have argued that outsourcing is an alternative with long run benefits for the world. The success of the service revolution will depend on the partnership between the private enterprise and the national governments. These will be facing adjustment costs such as unemployment, obsolete sectors, unqualified workers, etc; problems that are neither new nor unexpected. Economic growth and gains in social welfare are brought by democratic reforms, education, opportunity, and innovation. These are areas in which governments have the responsibility to act, and we, citizens of the developed world, should demand accountability and vision for the future.

6 Outsourcing and the role of international institutions

Outsourcing brings an additional responsibility for national governments: a deep commitment to the existent international institutions or/and the creation of supranational ones. After sixty years of existence, the efforts of the World Bank and the International Monetary Fund have not eradicated poverty, with the gap between developing and developed countries being wider than ever. While their initiatives are well intentioned, their achievements are far from satisfactory. Outsourcing is an opportunity to create markets in the developing world. The international institutions could be instrumental by searching for countries/sectors/markets to outsource. Rather than focusing on their traditional lending activities (a job that should be left to the world capital markets), they should focus almost exclusively on education, health, infrastructure investments, and on the tutelage of the social reforms indirectly brought by outsourcing. They should monitor and ensure that outsourcing activities do not just exploit cheap labour and that whatever welfare gains are achieved can be maintained. It is in the interest of national governments to sponsor and supervise the activities of these and other (i.e., UNESCO, UN, WHO, ILO) international organisations. The political structure of these bodies does not permit the direct participation of the people; these are indirectly represented by appointees of the government of their respective countries. Political debates rarely include international social agendas and, by nature, are myopic in their design. A more global economy requires a more global government. It may not be far fetched to expect that outsourcing will bring political reform to these international institutions by allowing direct participation of the citizens of the world.

As a final note, let us emphasise that this essay has run on an unspoken premise: on exporting jobs, there are people on the receiving end who have qualifications to trade. A new classification of the world is emerging: developed and 'developing with trade' countries. However, a question remains: what should be done when there are countries and people who do not have anything to trade? The poorest of the poor, those 'developing at the margin', are still expecting an answer.

Acknowledgement

I am grateful to an anonymous reviewer whose comments and suggestions have helped to produce a better article. I remain responsible for all errors.

References

Bardhan, A.D. and Kroll, C.A. (2003) 'The new wave of outsourcing', *Research Report*, Fisher Center for Real Estate and Urban Economics, UC Berkeley.

Bardhan, D.B., Jaffee, D.M. and Kroll, C.A. (2004) *Globalization and a High-Tech Economy. California, the United States and Beyond*, Springer Science, 1st ed., Berlin.

Bronfenbrenner, K. and Luce, S. (2004) 'The changing nature of corporate global restructuring: the impact of production shifts on jobs in the US, China, and around the globe', *Research Report submitted to the US-China Economic and Security Review Commission*.

Bureau of Labor Statistics (2004a) '*Extended Mass Layoffs Associated with Domestic and Overseas Relocations, Q1-2004*, US Department of Labor, Washington DC.

Bureau of Labor Statistics (2004b) *Table 3. Union Affiliation of Employed Wage and Salary Workers by Occupation and Industry*, US Department of Labor, Washington DC.

Drezner, D.W. (2004) 'The outsourcing Bogeymaan', *Foreign Affairs,* Council of Foreign Relations, May–June, http://www.foreignaffairs.org.

The Economist (2004) *A World of Work. A Survey of Outsourcing*, The Economist Newspaper Limited, November 13–19th, New York, NY, http://www.economist.com.