

# Outsourcing and International Labor Mobility: A Political Economy Analysis<sup>\*</sup>

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## **Abstract**

We analyze the political economy of worker displacement, in an environment characterized by individual-specific uncertainty about the precise distributional consequences of a change in the economic environment. This change allows the displacement of high-paid Northern workers by low-paid, skilled Southern workers who were previously barred from competing with Northern workers, due to restrictions on the mobility of workers, and/or because of technological limits on the mobility of jobs. But while a policy of relative openness may be economically efficient, it may also have adverse distributional consequences. The dilemma faced by the Northern politician is that limiting the inflow of human capital might exacerbate the outflow of jobs, as firms ‘outsource’ or ‘offshore’ tasks that had previously been performed domestically. In particular, why does the outsourcing of service sector jobs have greater political resonance than the loss of manufacturing jobs? Why does the displacement of information technology workers seem to generate a disproportionate amount of political backlash? We trace the political implications of differences in the ‘vulnerability’ of workers, and suggest that one answer may lie in the general-purpose nature of information technology, which allows greater mobility of workers and tasks across sectors than an improvement in sector-specific productivity.

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**JEL classification codes:** D72, P16, F22, O15.

## 1 Introduction

In February 2004 the U.S. Council of Economic Advisers (CEA) issued its annual Economic Report of the President. The CEA chair, Gregory Mankiw made what appeared to be a commonplace statement:

“Outsourcing is a growing phenomenon, but it’s something that we should realize is probably a plus for the economy in the long run. We’re very used to goods being produced abroad and being shipped here on ships or planes. What we are not used to is services being produced abroad and being sent here over the Internet or telephone wires. But does it matter from an economic standpoint whether values of items produced abroad come on planes and ships or over fiber-optic cables? Well, no, the economics is basically the same.”<sup>1</sup>

The statement sparked an uproar. In an election year with anemic jobs growth, politicians and the media leapt at the statement.<sup>2</sup> Leaders of both parties, in the House and the Senate, called for apologies, resignations, and reversals of policy. Anti-outsourcing websites sprang up (some proclaiming that they had been constructed purely by American labor - presumably others were not), denouncing the practice and the financial and emotional distress it was causing to American workers. The media fanned the flames. For instance, CNN anchor Lou Dobbs highlighted outsourcing in his shows and parlayed his concerns into a (forthcoming) book, *Exporting America: Why corporate greed is shipping American jobs overseas*. Thus, outsourcing had become “America’s national economic obsession.”<sup>3</sup>

Many of these commentators, who responded to what they perceived as popular pressures against outsourcing, are also the same ones who oppose the expansion of quotas on the migration of skilled

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<sup>1</sup> See the report in the New York Times, Feb 11, 2004, page A26. For a statement in the same vein, see the Council of Economic Advisors’ “Testimony before the Joint Economic Committee, US Congress,” available at: [http://www.whitehouse.gov/cea/economic/\\_report/\\_20040210.html](http://www.whitehouse.gov/cea/economic/_report/_20040210.html)

<sup>2</sup> Presidential candidate John Kerry accused CEOs of those firms that were outsourcing jobs overseas of being “Benedict Arnolds,” referring to the notorious traitor in the American war of independence (Drezner (2004)).

<sup>3</sup> See Rattner (2004). It should be pointed out that the political backlash against outsourcing (or more accurately, ‘off-shoring’) had been building for a while. See, for example, the *New York Times* op-ed piece co-authored by Sen. Charles Schumer of New York state (Schumer and Roberts (2004)) and the discussion in Drezner (2004).

workers. We dub this the ‘Northern politician's dilemma.’ The dilemma is occasioned by technological change that makes possible the outsourcing of jobs to the South, and provides economic opportunities and a potential Pareto improvement for citizens of the North. However, our analysis below also suggests that it presents no easy choices for a politician in the North. He faces a choice between two policies, both of which boost national income and can be considered to be substitutes. The incumbent politician can allow a relaxation of immigration restrictions on the import of scarce (especially skilled) labor. Alternatively, he can watch jobs being outsourced to lower wage developing countries. These are politically difficult choices, since both are likely to engender a political backlash. From a politician's perspective, each poses a dilemma.

Consider a relaxation of immigration restrictions. Greater labor immigration into the country, especially of skilled workers, has the potential to boost national income.<sup>4</sup> In addition, another upside of inward migration is that it is more likely to result in the retention of jobs within the country. To see this especially sharply, consider an example where the production technology is such that each skilled labor job supports a relatively large non-traded sector. In such a case, even if immigration lowers wages, it boosts overall labor demand through an increase in demand for these ancillary support jobs. Of course, relaxation of immigration restrictions is likely to be politically costly. In the short run at least, an expansion in the labor supply can adversely impact the wages of incumbent workers with similar skills (Borjas (2003)). Ethnic and cultural differences also typically make immigrants more “visible”, which may amplify chauvinism among voters, and has been blamed for the rise of right-wing parties in several European countries.<sup>5</sup> Finally, unlike flows of capital, immigrants are also potential future voters.

The outsourcing of jobs, on the other hand, poses a slightly different problem. As with the immigration of human capital, outsourcing is likely to boost national income by increasing, for example, corporate profits and investment. Nevertheless, this beneficial impact is likely to be somewhat muffled by the degree to which outsourcing results in a loss of ancillary jobs. Hence the impact of outsourcing on income distribution in the developed country is likely to be much more acute.

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<sup>4</sup> It is often argued that the gains, even to the developed countries, from liberalizing labor flows are far greater than those from further liberalizing the flow of goods, or even capital. See Rodrik (2002) for a discussion.

<sup>5</sup> See, for example, O'Rourke and Sinnott (2003), Kapur (2003), Scheve and Slaughter (2001), and Mayda (2002).

Nevertheless, it is surprising that there has been very little discussion of the key difference, from a political economy viewpoint, between job losses in the services versus manufacturing sector. In this paper, we focus precisely on this puzzle: why does the displacement of service sector workers, especially in information technology-intensive occupations, seem to generate a disproportionate amount of political backlash? Put another way, most economists would agree with Mankiw's assessment: "Outsourcing is just a new way of doing international trade".<sup>6</sup> Yet this statement was widely reviled by politicians from across the political spectrum. Why does the outsourcing of some jobs, most notably in information technology, have greater political resonance than that associated with the loss of manufacturing jobs?

In trying to understand this puzzle, we focus on a key feature of information technology: the fact that it is a general-purpose, rather than a sector-specific, technology. While we define this more specifically below, when we lay out our theoretical model, here we can simply define it loosely as something that is transferable across different sectors in ways that, for example, the manufacturing skills of assembly-line workers are not. One aspect of this general-purpose skill, which we focus on in this paper, is the size of the pool of 'vulnerable' workers.<sup>7</sup> In our analysis below, we examine the political ramifications of the differing extent of 'individual-specific uncertainty' engendered by different kinds of technological innovation.<sup>8</sup>

In the next section, we present a simple model to analyze the political economy of worker displacement, in an environment characterized by uncertainty about the precise distributional consequences of a change in the economic environment. This change allows the displacement of high-paid Northern workers by low-paid, skilled Southern workers who were previously barred from competing with Northern workers, due to restrictions on the mobility of workers, and/or because of technological limits on the mobility of jobs. We first describe the structure of the economy in the 'pre-globalization' world. Subsequently, we describe the impact of the technological revolution on workers, and the interaction of the (potential) displacement of workers

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<sup>6</sup> See Drezner (2004).

<sup>7</sup> One widely cited study by Bardhan and Kroll (2003) suggested that the number of U.S. workers 'vulnerable' to having their job outsourced was in the range of 14 million.

<sup>8</sup> The seminal paper on the political importance of individual specific uncertainty is Fernandez and Rodrik (1991), which we discuss in greater detail below.

with the politics of the responses to that potential displacement. In section 3, we discuss the available evidence, and consider alternative explanations for the political backlash. Section 4 concludes with some observations about the importance of designing insurance and compensation mechanisms to ease the intersectoral transition of displaced workers.

## 2 The Benchmark Model

Consider a developed economy where technological changes now make it possible to outsource skilled labor jobs to developing countries with much lower wages. As will become clearer in our model below, this is analytically similar to a policy change that relaxes restrictions on the inward migration of skilled labor. Suppose that all citizen-workers own equal shares of each firm in the economy.<sup>9</sup> Then this technological change immediately creates potential ‘winners’ out of the owners of firms, and of complementary inputs, on the one hand, and ‘losers’ in the form of workers who may get displaced into a lower-paying job. The distributional consequences of this outsourcing have the potential to create an unwanted political backlash for the incumbent government in the developed country. In what follows we construct a simple framework to capture the basic trade-offs faced by such a politician. While the politician does want to increase national income, this may entail the outsourcing of skilled labor jobs, and/or the immigration of skilled labor. Clearly, there is an adverse impact on the wages of those workers who lose their jobs. In other words, the increase in the size of the pie might simultaneously have adverse distributional consequences - much like all technological change.

### 2.1 Production and the Labor force: The Pre-displacement Economy

The developed economy is a small open economy that has  $N + 1$  sectors, consisting of  $N$  ‘modern’ sectors and one ‘traditional’ sector. Since our focus is on the distributional consequences of technological change, we make the simplifying assumption that production is carried out solely by labor inputs. Extending our simple model to include the provision of capital, entrepreneurial skills, etc., would complicate the analysis without adding significantly to the insight. Accordingly, the traditional sector uses constant returns to scale technology and requires only low skilled labor. The

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<sup>9</sup> In what follows, we use the terms ‘voters’, ‘citizens’ and ‘workers’ interchangeably.

traditional sector's production function is given by  $y_t = tL_t$ , where  $L_t$  is the number of units of labor employed and  $t$  is the marginal product. Workers in this sector therefore earn the competitively determined wage  $w_t = t$ .

In contrast, each of the 'modern' sectors uses two distinct kinds of labor input - the labor force that possesses sector-specific skills and labor that has general-purpose skills.<sup>10</sup> For simplicity, we assume that the skills of each worker are exogenously given and in fixed supply within the country (at the given wage). If sector-specific workers get unemployed for any reason, they can find employment only in the traditional sector, and not any of the other modern sectors. In contrast, workers with some general-purpose skills are mobile across the modern sectors. The idea is that workers with an ability to work with (for example) computers, software, and information technology in general, have skills that can be carried relatively easily across the modern sectors. Thus, while a medical doctor may find it difficult to find a job that requires his medical skills outside the health-care sector, an information technology expert may find it easier to migrate from the health-care to the hotel services sector. Further, we make the analytical simplification that the production function displays perfect complementarity of workers. Accordingly, using  $L_i$  to denote the amount of the sector-specific factor, and  $L_{ig}$  for the number of 'mobile' workers with general-purpose skills, the production function in sector  $i$  is given by

$$y_i = [\min\{a_i \cdot L_i, b_i \cdot L_{ig}\}]^\rho,$$

where  $y_i$  denotes output, and setting  $\rho < 1$  ensures that the production function has decreasing returns to scale. The constants  $a_i$  and  $b_i$  reflect the relative importance of the two types of labor in the production process. The total labor force in the modern sector is thus  $\sum_i(L_i + L_{ig})$ .

The technology of production is such that while workers in the modern sector are subject to moral hazard, workers in the traditional sector are not. This implies that in order to control the agency problem, the modern sector firm has to pay its workers a premium above the market-clearing wage.<sup>11</sup> Accordingly, there is a floor to the wages in the modern sector such that  $w_g, w_i > w_t$ , where

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<sup>10</sup> It does no harm to think of the tasks being performed by these two types of workers as being, loosely, (sector-specific) manufacturing tasks, and (general-purpose) 'information-processing' tasks.

<sup>11</sup> This formulation is standard in the efficiency wage literature - see Shapiro and Stiglitz (1984) for a classic application. Accordingly, we assume that a worker who is found to shirk is thrown back into the labor force and suffers a lower wage. The wage premium is the minimum wage required to deter him from shirking.

$w_g, w_i$  denote the equilibrium efficiency wage earned by general-purpose and sector-specific workers respectively.<sup>12</sup>

Therefore, each firm hires workers with the aim of maximizing profits, where firm profits in sector  $i$  are given by:

$$\pi_i = p_i[\min\{a_i \cdot L_i, b_i \cdot L_{ig}\}]^\rho - w_i L_i - w_g L_{ig}$$

Observe that, since that the firm will always combine the sector-specific and general-purpose workers in fixed proportions, the firm's maximization problem can be written as:

$$\pi_i = \max p_i y_i - \frac{w_i}{a_i} (y_i)^{\frac{1}{\rho}} - \frac{w_g}{b_i} (y_i)^{\frac{1}{\rho}}$$

This gives the first order condition with respect to output  $y_i$ , that price will equal marginal cost:

$$p_i = \frac{w_i}{a_i} \frac{1}{\rho} y_i^{\frac{1}{\rho}-1} + \frac{w_g}{b_i} \frac{1}{\rho} y_i^{\frac{1}{\rho}-1} = \left(\frac{w_i}{a_i} + \frac{w_g}{b_i}\right) \frac{1}{\rho} y_i^{\frac{1}{\rho}-1}$$

Finally, we make the simplifying assumption that the number of firms  $n_i$  in each of the modern sectors is fixed, even though the incumbents may be making positive profits. Alternatively, one could assume the existence of fixed costs large enough that the incumbents just break even. Another alternative would be to posit the necessity of some ‘entrepreneurial capital’ for starting up a firm, and the supply of this resource may be limited, at least over the period of analysis.

## 2.2 Production and the Labor force: The Post-displacement Economy

Suppose that a technological innovation makes it possible to have the work of a modern sector worker done by a (lower-paid) worker in a foreign (developing) country. As mentioned above, an alternative would be to think of this possibility, of hiring a cheaper substitute, as arising from the

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<sup>12</sup> Note that the inter-sectoral mobility of the general-purpose workers means that their wage will be the same across all sectors.



new availability of (perhaps temporary) migrant workers.<sup>13</sup> The analytics of both these alternatives is qualitatively similar. Hence, although we model the comparative statistics in terms of the outsourcing of jobs, it may be useful to keep in mind that the analysis of the new equilibrium arising from labor migration would be similar.

We contrast two kinds of ‘job losses’: (a) what might be described as the ‘old outsourcing’, in which there is a loss of manufacturing jobs; and (b) the outsourcing of information technology (service sector) jobs. In terms of our model, to facilitate the comparison of the political implications, we keep constant the number of jobs lost, of these two different kinds of job losses. In one case, the job losses are concentrated among sector-specific workers, while in the other, the job losses are among general-purpose workers.

Suppose there is a technological change that enables part of the production to be outsourced to a foreign (South) country. However, due to limited production capacity in the South, sector  $j$  firms still produce some units in the home country. Consider first a situation in which the job losses are solely confined to sector-specific workers. The cost function is otherwise unchanged, so that the new marginal cost function shifts down for part of its range, as shown in Figure 1.<sup>14</sup>

< Insert Figure 1 about here >

More formally, let  $\mu_j$  denote the number of workers that each firm in the  $j$ th sector can hire more cheaply abroad, at a wage of  $w'_j < w_j$ . Further, suppose that  $w'_j \leq w_t$ . In other words, the output created by the displaced worker in the traditional sector is greater than the payment to the foreign factor of production. This can also be thought of as an ‘efficiency condition’, which ensures that national income rises as a consequence of outsourcing. An alternative interpretation is to note that this is equivalent to assuming that  $(w_t - w_j) + (w_j - w'_j) \geq 0$ , i.e., that the wage loss of the displaced worker is exceeded by the increase in the profits of the outsourcing firm.

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<sup>13</sup> Further, these temporary migrants’ wages are lower than those of the developed country workers. In terms of an efficiency wage model, the incentive constraints they face are determined by their (lower) reservation wage - if caught shirking, they will revert to their source (developing) country wage, and do not have recourse to the traditional sector wage  $w_t$  in the developed country.

<sup>14</sup> The easiest way to see this is to consider a sector  $j$ , in which  $y_j = [a_j \cdot L_j]^p$ . In other words, output is constrained solely by the employment of sector-specific workers, i.e.,  $b_j$  can be thought of as effectively being equal to infinity.

In that case, the total cost of producing  $y_j$  units in the  $j$ th sector, assuming that  $y_j$  exceeds the productive capacity of the foreign producers, is given by:

$$C(y_j) = \left(\frac{y_j^{\frac{1}{\rho}}}{a_j} - \mu_j\right) \cdot w_j + \mu_j \cdot w'_j + \frac{y_j^{\frac{1}{\rho}}}{b_j} \cdot w_g = \left(\frac{y_j^{\frac{1}{\rho}}}{a_j}\right)w_j - \mu_j \cdot (w_j - w'_j) + \frac{y_j^{\frac{1}{\rho}}}{b_j} \cdot w_g$$

where the second term shows the cost savings accruing to the firm. The key point to note is that the marginal cost of producing the  $y_j$ th unit of output is unchanged, since the cost reductions come on the infra-marginal units. Hence, each firm's optimal output is still determined by equalizing price to the (unchanged) marginal cost at its old output level. Of course, the fact that the cost of the infra-marginal units has fallen, means that there is a windfall increase in each firm's profits. Hence, the 'winners' from this outsourcing are sector  $j$  firms, and society at large, since the ownership of each firm is spread evenly across each citizen of the country. The potential losers are the displaced sector-specific workers. Since the total output of the  $j$ th sector is unchanged, and because the  $\mu_j$  displaced workers are unable to bid down the wages of the other sector-specific workers,<sup>15</sup> they are forced to resort to employment in the traditional sector, at a lower wage of  $w_t$ .<sup>16</sup>

Next, consider a different form of outsourcing, in which job losses come from the outsourcing of the general-purpose workers' jobs. These workers, by the very nature of their skills, are mobile across sectors. Like the displaced sector-specific workers, one implication of the efficiency wage model is that the losses to these workers come from the reduction in employment (rather than in a decline in wages for all general-purpose workers). To sharpen the contrast with the loss of sector-specific jobs, suppose that the number of general-purpose jobs lost is the same as in the above case, viz.,  $\mu_j$ . Now, however, both the job losses, as well as the gains to employers, are spread across all sectors (albeit more thinly). As in the earlier case, the gains come from the fact that some of the (infra-marginal) units become cheaper to produce using lower-paid foreign general-purpose

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<sup>15</sup> Due to the efficiency wage considerations alluded to above, they are unable to credibly promise to exert effort without a wage premium above the traditional sector wage.

<sup>16</sup> Suppose that, to these particular displaced workers, the loss of their wages exceeds their gains from the higher firm profits, so that overall, they emerge as losers from this policy. We derive an explicit condition for this below, in the next section.

workers. The losers are, once again, those (general-purpose) workers whose reduction in earnings (to  $w_t$  from  $w_g$ ) is greater than their gains from the increased firm profit.

### 2.3 The Political Economy of Worker Displacement

We can now compare the political economy of the two kinds of job losses. Recall that all citizen-workers own equal proportions of all the firms in the economy. Hence, for any given worker, there are two countervailing forces at work, in both the case when the job losses are sector-specific, and when they are in the general-purpose skilled jobs. On the one hand, all workers gain from the higher firm profits that are realized as a consequence of the availability of lower-cost modern-sector workers. On the other hand, those particular workers who are displaced by these newly available skilled workers, will turn to lower-wage employment in the traditional sector.

Since workers within each type (sector-specific and general-purpose) are identical to other workers of their type, suppose that the displaced workers are picked randomly from the category of workers whose jobs are being outsourced. In that case, no worker in the affected sector can be certain *ex ante* that he will be a loser. However, the key point to note is that the number of *vulnerable* workers is greater when the layoffs occur in the general-purpose sector.

More formally, the number of workers who are potential losers, in the case when the labor displacement occurs among the sector-specific workers in the  $i$ th sector, is given by  $L_i$ . Although it is known *ex ante* that a majority of them may well turn out to be *ex post* ‘winners’ from the process, it is straightforward to see that their *expected* payoff may be negative. The probability of being a loser is given by:  $\frac{\mu_i}{L_i}$ . Using  $\Delta\Pi$  to denote the increase in aggregate firm profits, and  $L$  to denote the total number of the citizen-workers, the expected payoff of a representative sector- $i$ -specific worker is given by:

$$\frac{\mu_i}{L_i}(w_t - w_i) + \frac{\Delta\Pi}{L}$$

where the first term represents the expected wage loss in the event that the worker is displaced, and the second term represents the expected increase in firm profits that accrues to each worker in the economy. If the diffused general benefit,  $\frac{\Delta\Pi}{L}$ , is sufficiently small relative to the expected personal

loss of wage from being displaced,  $\frac{\mu_i}{L_i} (w_i - w_t)$ , as seems likely, then the expression will be negative.<sup>17</sup>

By contrast, the number of workers who are potential losers, in the case when the labor displacement occurs among the general-purpose workers, is given by  $\sum_j L_{jg}$ . Again, although it is known that a large majority of them will turn out to be ‘winners’ from the process, it is straightforward to see that their *expected* payoff may be negative. More formally, the probability of being a loser is given by:  $\frac{\mu_i}{\sum_j L_{jg}}$ , and the expected payoff of a representative general-purpose worker is given by:

$$\frac{\mu_i}{\sum_j L_{jg}} \cdot (w_i - w_g) + \frac{\Delta\Pi}{L}$$

Once again, the terms represent, respectively, the loss of wage in the event that the worker is displaced, and the gain from the general benefit of higher firm profits. If the diffused general benefit,  $\frac{\Delta\Pi}{L}$ , is sufficiently small relative to the expected personal loss of wage from being

displaced,  $\frac{\mu_i}{\sum_j L_{jg}} (w_g - w_t)$ , as seems likely, then the expression will be negative. This is true even

when the likelihood of being displaced,  $\frac{\mu_i}{\sum_j L_{jg}}$ , is relatively low.

The key point to note is that (so long as  $\sum_j L_{jg}$  exceeds  $L_i$ ) the political opposition to the adoption of the labor-displacing policy is likely to be much greater in the latter case than in the former. In terms of the model above, the opposition to this innovation will come from  $L_i$  workers in the case

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<sup>17</sup> A sufficient condition is that:  $(1/L) \cdot (w_i - w'_i) \leq (1/L_i) \cdot (w_i - w_t)$ . This can be seen by noting that  $\Delta\Pi = \mu_i \cdot (w_i - w'_i)$ . Now, the efficiency condition guarantees that  $(w_i - w_t) \leq (w_i - w'_i)$ . Hence the assumption is that  $L_i \ll L$ , i.e., that the employment share of the  $i$ th sector is relatively small.

when the job losses are confined to the sector-specific workers in the  $i$ th sector, whereas all the  $\sum_j L_{jg}$  general-purpose workers will be in opposition when the job displacements are diffused across a wider pool of workers.

Thus, even though the probability of being displaced, and the expected loss in wages, may be lower in the latter case, the number of *potential* losers is greater. This *individual-specific uncertainty* about the effect of potential outsourcing is the key to understanding why political resistance is likely to be greater in the latter case. The idea that individual-specific uncertainty can hinder the passage of even those reforms that voters know *ex ante* will lead to an increase in national income, and will benefit a majority of voters, is one that can be attributed to Fernandez and Rodrik (1991). Here, we apply that insight to suggest that even if one controls for the *number* of layoffs, the differences in the vulnerability of workers to these shocks might explain the very different political pressures generated in response.

For simplicity, here we have modeled workers as voting directly on policies. But the general idea can be easily embedded in a model in which voters choose representatives who decide policy, as in the widely used ‘representative democracy’ framework (Besley and Coate (1997, 1998), Osborne and Slivinski (1996)). Again, for simplicity we have also ignored the possibility of compensation of displaced workers. Of course, if winners could compensate losers without cost, then any ‘potentially Pareto-improving’ policy (Besley and Coate (1997, 1998)) will be adopted by voters. However, as Jain and Mukand (2003) have argued, redistributive compensation may be difficult to implement. Promises of compensation must be credible, but all voters know that once the winners have been realized, they face an *ex post* time-consistency problem, in that they will be reluctant to give up part of their gains. If there are a large number of realized winners, then the government's sensitivity to this reluctance is likely to be especially acute. Nevertheless, the compensation of displaced workers, for example, in the form of unemployment benefits, or retraining subsidies, is an important part of the policy debate, to which we turn next.

### **3 Discussion, and Policy Implications**

Traditionally, outsourcing has described the sub-contracting of services from one company to another - an activity as old as the first firms. Today, the term has come to encompass the specific trend of importing services from low-cost providers located offshore – “offshoring.” Why has this phenomenon caused so much anxiety in the world’s richest, largest, and most powerful economy? In terms of its effects on employment, it appears at first glance to be no different from the automation that worried US workers after the Second World War, after which America went on to enjoy a long period of prosperity. And outsourcing of manufacturing jobs has been going on for decades. Conceptually, there is little difference between relocating manufacturing production abroad and relocating services abroad. Both increase productivity and living standards, but of course both have distributional implications.

In contrast to trade in goods, which has exceeded GDP growth over the past half-century, the spurt in services trade has been more recent. In part, this is because most countries have only recently begun to liberalize their services sectors. However, the critical driver has been the revolution in information and communications technologies. The extent to which a wide range of business processes can be broken up into component parts, digitized, and dispatched to any corner of the globe, instantaneously and exceedingly cheaply, is having major repercussions for a range of jobs that were previously regarded as non-tradable. The cost savings are often too large to ignore in an increasingly competitive economic environment. A recent widely-cited report by the McKinsey Global Institute estimates a net cost reduction of 58 cents on every \$1 “offshored” by firms, “even as they gain a better (or identical) level of service”.<sup>18</sup> The competitive pressures to outsource operations overseas – e.g., software development, and back office work, to take two prominent examples – can be easily imagined. But similar incentives exist in other, often more technologically sophisticated, service sectors too. For example, estimates of cost savings from outsourcing select engineering, information technology and other support functions in the automobile component industry range up to nearly 50 per cent, compared with performing the same functions in the U.S. Similarly, the cost of developing a new drug, currently estimated at between \$600 million and \$900 million, can be cut by as much as \$200 million if development work is outsourced to India.<sup>19</sup>

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<sup>18</sup> For details on the estimates cited in this paragraph, see McKinsey Global Institute (2003).

<sup>19</sup> More recently, the sheer scope of the new outsourcing is captured by an interesting phenomenon. A number of news sources have reported that churches in the US and Europe are “outsourcing” Holy Mass to parishes in Kerala in India where it is now known as the “Dollar Mass.” (For a recent report, see Rai (2004)). Mass intentions - requests for

### **3.1 The Political Backlash**

The political backlash, as discussed earlier, has been strong, with a number of legislative initiatives geared to protect jobs in the U.S. and Europe (particularly in the UK). In the U.K., British Telecom's employee union initiated a series of one-day strikes in 2003 to resist the company decision to set up a call center in India and to force the High Court to intervene to stop it. In mid-October 2003, the House of Commons launched an inquiry into offshore outsourcing, to assess to "what extent, and why, jobs that were intended for the UK have been lost to the Indian sub-continent." In the U.S., at the federal level, a flurry of bills like the "Job Protection Act" were introduced in 2003, designed to eliminate the tax incentives for offshore production and instead to provide tax incentives to produce in the US. In January 2004, the US Senate passed an amendment that would prevent private companies from using offshore workers in order to compete successfully against government workers on some contracts opened up to competition. (It applied only to the US Treasury and the Department of Transportation). Simultaneously many states got into the act as well and, over the period 2003-2004, approximately 37 states had introduced (or were considering introducing) legislation aimed at eliminating public contracting to offshore destinations, and at restricting foreign-based call centers.<sup>20</sup>

### **3.2 How Large is Worker Displacement?**

The reasons for the political backlash against the outsourcing of services might seem obvious if job losses were quantitatively large, but it is not at all apparent that this is the case. A wealth of evidence suggests that job losses caused by outsourcing were very small relative to job losses due to the normal business cycle and because of changes in technology. For example, a widely cited report by the U.S. Department of Labor found that layoffs caused by outsourcing comprised about 2 percent of the total layoffs in the first quarter of 2004.<sup>21</sup> Federal Reserve Chairman Alan

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services, such as thanksgiving and memorial masses for the dead - made in foreign dioceses are frequently outsourced to churches in Kerala. Prayers for the dead have been outsourced for decades but the number has increased recently.

<sup>20</sup> John Kerry, then one of the Democratic presidential frontrunners, had also called for a "right to know" law that would require all call centers to disclose their location.

<sup>21</sup> Although the study examined only mass layoffs (of more than 50 workers) in large establishments (of 50 or more workers), the numbers were sufficiently small that there did not appear to be any indication of large-scale job

Greenspan has described off-shoring as part of the “creative destruction” that leads to higher living standards. Ben Bernanke, vice-chairman of the US Federal Reserve, has argued that the quantitative impact of outsourcing on the U.S. labor market has been relatively small. Instead, he argues, the main reason for the weak U.S. labor market has been the “astonishing gains” in labor productivity in the past few years.<sup>22</sup> Further, when one considers that the U.S. is a net exporter of services, there is a strong argument that the net, rather than gross, effect on job creation may well be positive. The balance of trade in services reflects a trade surplus in high-value services, including financial, legal, engineering and software development, while many of the services imported by the US are less sophisticated and, hence, less costly.

### **3.3 Alternative Explanations for the Political Backlash**

The combination of election-year politics with the weak macroeconomic situation perhaps made some political backlash against outsourcing inevitable. Nevertheless, the question is why, even in a presidential election year, the issue of a relatively small number of job losses is so politically potent. While we have offered an explanation based on the uncertainty regarding winners and losers, we do not mean to suggest that this is the sole, or even the leading factor. Other alternative explanations include the idea that the political potency of the loss of white-collar, service-sector jobs is especially great. Implicit in that argument is that there is, in some sense, a ‘ladder’ of jobs: as manufacturing jobs were offshored, workers moved to service jobs. Hence the insecurity created by the loss of service jobs becomes especially great.

Another reason for greater fears amongst IT workers is that, unlike their counterparts from the manufacturing industry, who under the Trade Adjustment Act get unemployment benefits as well as paid education for up to two years if they cannot get another job (as well as job-hunting services and expenses, assistance to pay health insurance and re-training), IT workers who lose jobs due to offshoring are left without similar benefits. The law does not consider their output to be the equivalent of a manufactured product. Fiscally strapped governments fearing the financial costs of

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relocations. For details, see: Bureau of Labor Statistics, “Extended mass layoffs associated with domestic and overseas relocations, first quarter 2004,” June 10, 2004. Available at: <http://stats.bls.gov/news.release/reloc.nr0.htm>

<sup>22</sup> “Quantitatively, outsourcing abroad simply cannot account for much of the recent weakness in the US labor market and does not appear likely to be an important restraint to further recovery in employment”. Quoted in Balls and Swann (2004).



such new entitlement benefits may prefer to instead turn to policies and legislation against offshoring.

These fears are magnified by other factors, such as the jobs' destination: perhaps if they were going to an OECD country, the fears would have been less. However, the destinations highlighted tend to be such developing countries as India, with a large pool of skilled English-speaking labor, and a growing investment in higher education, particularly in engineering and in information technologies. Second, unlike manufacturing, the wage disadvantages are not compensated by productivity disadvantages. India's service sector productivity is close to (and in some cases matches and exceeds) western levels. Finally, the shift is not just in commoditized work but also in highly skilled jobs. Indeed the wage differential (after factoring in other costs) at a call center in India and an equivalent center in the US is relatively modest. However, since the wage differential is much larger in high skilled occupations, the economies of scale for higher value-added work like equity research, chartered accountancy, legal services, medical consultations and publishing can be achieved at much lower levels.<sup>23</sup>

Finally, the rising fixed costs of granting retirement and medical benefits to new workers means that either the state provides greater social insurance or the privately rational course for firms will be to move offshore. This might explain why there is greater offshoring by Anglo-Saxon companies than by western European companies, where the state picks up a greater part of the overhead costs of firms.

## **4 Conclusions**

In this paper, we have attempted to set out some of the tradeoffs that politicians, and voters more generally face, in choosing between policies that may be economically beneficial in the aggregate, but that may have adverse distributional consequences. In order to focus on the trade-off between labor mobility and outsourcing, we have constructed an extremely stylized model that abstracts

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<sup>23</sup> For a discussion of these issues, see Alden, Luce and Merchant (2004).

from many important related issues.<sup>24</sup> Given the lack of hard data on the magnitude of the phenomenon, any rigorous assessment of its global impact will have to await the availability of better data. Yet, even in the absence of ‘hard numbers’, the public debate that has been generated is in danger of obscuring the powerful technological and organizational changes driving this phenomenon. Few large companies are now prepared to discuss their outsourcing strategies in public. The lack of firm data has led some skeptics to question whether there is anything new about outsourcing beyond providing a fresh excuse for protectionism among populist politicians.

We have argued that one explanation for the greater political resonance of worker displacement in service sector jobs, whether as a consequence of offshoring or expanding labor migration for skilled workers, is precisely that the vulnerability of workers to those adverse distributional consequences may be greater. Thus, even though the economic benefits of expanded migration and outsourcing may be very large in the aggregate, so may the political costs. Hence, the development of compensatory, or insurance, mechanisms to soften the adverse shocks to workers may be especially necessary for the kinds of displacements that have been occasioned by advancements in general-purpose technologies such as information technology.

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<sup>24</sup> For example, in our model, the winners and losers from outsourcing are quite clear. More generally, however, a more nuanced analysis requires a full general equilibrium model, and the incorporation of the possibility of foreign direct investment as an alternative to outsourcing. (See, for example, Kohler (2001, 2004)).

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Figure 1: Reduction in marginal cost

