Offshoring of routine tasks and (de)industrialisation: Threat or opportunity—And for whom?

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Abstract

Offshoring, or overseas sourcing of routine tasks, generates efficiency gains that benefit consumers and workers with skills similar to those whose very jobs are threatened by offshoring. Essentially, the interaction between offshoring, footloose capital and agglomeration economies locks the comparative advantage of advanced nations in complex or strategic functions while labour services in ‘routine’ tasks, the coordination of which is easily codified, are provided by low-wage developing nations through the fibre optic cable. In this framework, the partial-equilibrium view that offshoring is necessarily detrimental to workers in advanced nations is misguided because the implicit counterfactual—that keeping the off-shored jobs would have no macroeconomic impact on the economy—is not warranted. In addition, inasmuch as routine tasks create few positive feedbacks, trade in tasks can be an impediment to income convergence, unlike trade in goods. In short, this paper qualifies the views that offshoring hurts workers in the North and accelerates income convergence between the North and the South.

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1. Introduction

This paper links two facets of ‘globalisation’—the re-location of the manufacturing sector and the offshoring of routine tasks to emerging countries—to the reduction of spatial frictions along two distinct dimensions, namely, to the flow of goods and to the flow of information. Specifi-
cally, this paper studies the positive and normative effects of ‘offshoring’ routine tasks and its interaction with falling trade costs when trade in goods is characterised by imperfect competition and agglomeration economies. In this framework, the efficiency gains that result from such offshoring benefit workers from developed nations, despite the de facto competition from workers in low wage countries. As it turns out, offshoring triggers a specialisation by function rather than by sector (routine tasks in East Asia, complex tasks in Japan, say) and generates efficiency gains. This kind of specialisation relaxes the pressure to move the entire manufacturing production chain to low wage countries. This has an important policy implication for OECD countries: prohibiting offshoring so as to ‘save domestic jobs’ might backfire because the side effect of such a policy is to forego the aforementioned efficiency gains. As a result, the whole bulk of tasks might be relocated.

Globalisation can be thought of as the ‘unbundling of things’ (Baldwin [3]). To oversimplify, over the time period 1870–1914 and since 1960, trade costs for goods fell rapidly (in 1990, ocean and air freight costs were worth only 46% and 24%, respectively, of what they were in 1940). Indeed, steam ships, steam trains and air cargo dramatically relaxed the need to produce goods close to the final demand; this pattern is linked to the de-industrialisation of developed countries relative to emerging countries like China. More recently, this reduction of trade costs was dwarfed by the reduction in communication costs—that is, the cost of trading information and ideas (in 1990, the cost of transatlantic phone calls and satellite charges were only a fraction of their 1940 levels—8% and 1%, respectively). Falling communication costs fostered the second unbundling: some tasks—usually referred to as ‘routine tasks’—can easily be codified and transmitted via fibre optic cables or satellites and require few face-to-face interactions; this enables the fragmentation of the production process, which includes offshoring when happening across international borders. As a result, we should expect that ever fewer routine tasks are being conducted in high-wage countries. Consistent with this view, Autor et al. [2], who measure the composition of the US labour force over the period 1960–2000, report that the mean share of routine tasks in the distribution of all tasks has been decreasing since 1980 at least. To summarise, the fall in the cost of moving costs relaxes the need to cluster production near people whereas the fall in the cost of moving ‘ideas’ relaxes the need to cluster production altogether (Baldwin [3]).

Importantly, the effects of the two types of unbundling on the distribution of income can be quite different. Falling trade costs in goods allows countries to exploit their comparative advantage by sector, affecting the terms of trade with well-known Stolper–Samuelson results on the real returns of factors. Consistent with this view, real wages of rich countries’ unskilled workers have been falling since the 1970s. By contrast, the welfare effects of the second unbundling are ambiguous. Indeed, jobs being threatened to be off-shored abroad resist the simple skilled-versus-unskilled dichotomy (Scheve and Slaughter [24]). As Baldwin [3] puts it, “[routine] tasks such as computer programming and account management used to be de facto non-traded and this meant that the rewards to workers performing these tasks were not linked to the global market—they were set in local markets. This meant that the North–South wage gap in these tasks could greatly exceed the North–South productivity gap (p. 5).” In this context, recent technological breakthroughs in communication technologies give rise to arbitrage opportunities.

In the model I develop in this paper offshoring reduces costs in a way that is equivalent to (labour augmenting) technological progress in the sector offshoring tasks; the general equi-

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1 As a suggestive example, consider the United States and Japan. In both cases, the widespread offshoring of unskilled manufacturing jobs that started in the mid-1980s was not accompanied by a general decline in manufacturing employment until the late 1990s (Debande [9]).
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