The University of Nottingham

GEP

Leverhulme Centre
for Research on Globalisation and Economic Policy

Offshoring and the UK economy

The trend towards offshoring is of growing concern to many in the UK. People fear their jobs are being exported to countries like India and China, where labour is cheaper. But is offshoring something to be feared? Has it led to significant job losses in the UK? Does offshoring benefit companies that participate?

This is the largest study carried out into the phenomenon.

Using a database of information spanning the period 1996 to 2005, economists at GEP – the Globalisation and Economic Policy Centre – have analysed a sample of more than 66,000 UK firms to investigate various aspects of performance and address the key issues surrounding offshoring. The result is a 120-page report: *The Economic Impact of Offshoring*.

We live in an increasingly globalised world, and offshoring is just one manifestation of the globalisation phenomenon.

It is obviously growing in prevalence but is not as pervasive as media headlines often imply. It is also untrue to claim it involves nothing but giant multinationals in rich nations setting up affiliates in poor countries with 'cheap labour'.

It is clear from our research that offshoring does contribute to changes in what is known as the 'skill mix', but our findings also show that it results in increased turnover, improved productivity, more exports and higher employment.

Plainly, from an economy-wide perspective, activities that produce such results should be embraced rather than discouraged. This study shows that offshoring is not to be feared. It is something that should be welcomed and whose benefits are there to be exploited.

David Greenaway
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Introduction: fear, fiction and fact

'Globalisation' and 'offshoring' can be emotive terms, but the fact is that we live in a world that is highly globalised. And, like it or not, it will become even more so, if only because the most populous nations – Brazil, China, India, Indonesia, Pakistan and Russia – are not yet very globalised themselves.

Offshoring is just one of the ways through which globalisation manifests itself. Others include international trade, foreign direct investment, international portfolio investment and international migration of labour – all of which have grown significantly in recent decades.

Globalisation has actually been going on for centuries. Well-established and well-documented trade networks existed 2,000 years ago, stretching all the way from the extremities of the Roman Empire in the West to the Chinese Han Empire in the East. Offshoring, though, is the 'newest' form of the phenomenon.

Perhaps this is what makes it so controversial. In addition, its effect on domains previously untouched by globalisation creates yet more contention. Media headlines, for example, have tended to focus on activities perceived as offshored to 'low-wage' economies.

The purpose of this report, then, is to examine the economic effects of offshoring in general and its implications for the UK economy in particular; to determine whether it is as pervasive as is often implied; to assess whether it is to be dreaded or embraced; and, crucially, to establish precisely where the fear and the fiction end and where the facts begin.

So what *is* offshoring?

Put simply, offshoring is the practice of a company in one country arranging for people in another country to do work for it. As with globalisation, it is driven largely by technological developments and falling costs of doing business internationally.

Offshoring has grown impressively during the past decade, especially in some of the larger OECD (Organisation of Economic Co-operation and Development) countries. Any offshoring exercise incurs start-up costs, but it is now far easier and cheaper – particularly in light of continued deregulation and liberalisation – for an efficient firm to carry out the necessary market research, invest in the required training, establish the essential telecommunications bridges and so on.

That said, offshoring still represents a relatively small share of overall economic activity – less than five per cent in the UK in 2004, for instance.

Since globalisation makes markets increasingly competitive, successful enterprises are driven to search for greater efficiency and reduced costs. It is therefore unsurprising that there is evidence linking offshoring activity with changes in relative wage-rates.

Yet wages are not the sole driver: they interact with skills in general and language, literacy and IT skills in particular. This is why offshoring is clustered not in the world's lowest-wage economies but in relatively low-wage economies that also have some depth to their supply of relatively high-skill labour – e.g. India or Eastern Europe.

Infrastructure is important to offshoring decisions, as people, services and information have to go back and forth continuously. Socio-political infrastructure is also a key factor, since enterprises must be confident that chosen locations protect intellectual property, guarantee the security of assets, minimise bureaucratic interference and so on.

Evidence shows imports and exports of business services exhibit similar trends over time. In other words, increases in imports go hand-in-hand with increases of exports. Other benefits of offshoring include a more efficient use of scarce resources, lower prices to consumers and access to a wider range of products and services.

However, alongside the long-term gains are the short-term adjustments. Enterprises move from one activity to another; workers transfer from one job to another.

Job losses result in stresses and strains; transitional costs need to be managed to ensure support for globalisation is not undermined.

The economic impact of offshoring: a general view

The natural place to begin when assessing the economic impact of offshoring is its effect on production and production structures. Economists determine this within the context of a production function: in other words, the relationship between the amounts of factor inputs like labour, capital and skills and the way they are used to produce goods or services.

At its simplest level, offshoring represents a change in the mix of inputs used. Hence if work is offshored then there may also be a decline in the amounts of inputs. In popular discussion it is this direct effect on which the media tends to focus, as it is equated with job destruction.

However, because the mix of inputs changes, offshoring can result in improvements in productivity within an enterprise. Such productivity gains, in turn, can lead to job creation as activities complementary to the offshored work expand in scale.

It is vital to remember just how significant 'normal' turnover in the labour market is. Recent evidence from GEP economists suggests 51,000 jobs are lost and 53,000 created *every week* in the UK. That means 15 to 16 per cent of the private sector workforce churns in this way each year. To put offshoring into context, it was estimated that the phenomenon was responsible for around only 3.5 per cent of job losses in the UK in 2005.

A growing number of studies have focused on offshoring's employment effects, mainly covering countries within the OECD. Although some of these studies have identified small negative effects, the consensus that seems to be emerging is that the effects are either broadly neutral or result in a small net gain.

Although the dynamics are somewhat complicated, economic theory also indicates that offshoring might be linked to aggregate productivity growth – a key driver of economic growth as a whole. This would be the case if it turns out that enterprises that offshore are generally more productive than those that do not and are involved in expanding areas of economic activity.

Is Britain simply offshoring to cheap labour markets?

It is a common perception that offshoring in the UK is simply about outsourcing thousands of jobs to so-called 'cheap labour' markets overseas.

To investigate this question more closely we used advanced econometric techniques to investigate a range of aspects of firm performance from our large data sample. We focused in particular on multinational enterprises (MNEs), as they are heavily involved in offshoring. Restricting the focus to UK-owned MNEs with foreign subsidiaries, the analysis covered 925 firms in manufacturing and 1,928 in services.

Most of these MNEs have their subsidiaries in a small number of locations. Of the UK multinationals, 1,949 have just one foreign subsidiary; 336 have two; 159 have three; and 81 have four. Only 112 manufacturing and 216 services firms, representing just 0.6 per cent of the firms in the sample, have more than four foreign subsidiaries.

In addition, these MNEs overwhelmingly locate their subsidiaries in other OECD countries. Some 96 per cent of UK multinationals in the manufacturing sector have at least one subsidiary within OECD member nations, while just 20 per cent have subsidiaries within non-OECD countries; only eight per cent have subsidiaries in either China or India.

The figures are similar in the services sector, where some 95 per cent of UK multinationals have at least one subsidiary in OECD member countries; only 18 per cent in non-OECD countries; and a mere 4.5 per cent in India and China.

These findings refute the common misrepresentation that the UK is offshoring jobs largely to 'cheap labour' markets. They are echoed by findings for multinationals elsewhere in the Euro area. The truth is that the most frequent locations for foreign affiliates are other developed countries, mainly other European nations and the US.

Where and why?

We have already seen that not all multinationals invest in all locations, so what exactly determines their choices? Our analysis finds strong statistical support for factors such as distance, the quality of human capital, proficiency in the English language and other aspects of historical ties with the UK.

These requirements give rise to a number of interesting experiments, not least the question of what would happen if the language skills of competitor countries improved to the level of English-speaking nations.

In some instances, according to our calculations, the probability of those countries attracting offshoring would increase by as much as 500 per cent. However, these results occur in nations whose initial probabilities are very low.

Perhaps more interesting figures are to be found for the likes of China, whose probability of attracting UK offshoring would approximately double. A Central East European country – the Czech Republic, for instance – would enjoy a similar increase. Removing the language barrier between the UK and Continental Europe, meanwhile, would make the latter a more important destination for UK offshoring than the US.

Another experiment repeats the what-if scenario in terms of an improvement in policy conditions to a level comparable to those in the UK. The responses are smaller than those in the previous analysis, but again some notable results emerge.

For example, the probability increases for fast-growing, emerging nations such as China, India and Brazil are large. India's almost doubles, while Brazil's enjoys a near-fivefold boost; but it is China, whose probability is more than 28 times as great, that streaks ahead – an indication of the importance of current barriers.

Putting the what-ifs aside for now, however, our analysis concludes that UK firms are more likely to offshore to countries that are relatively large, relatively wealthy, relatively close to the UK and English-speaking, with a relative abundance of human capital, a good information/communication technology structure and a 'market-friendly' policy environment. Support for a combination of skills and the English language is especially strong.

The economic effect of offshoring in the UK

The most widely debated question is whether offshoring leads to employment losses or gains within an industry, and this is something we have looked at in detailed analysis of the 66,000 UK firms in our sample. We have also considered the impact of offshoring on other aspects of business performance, such as wages, productivity and exports.

Our analysis shows that in the manufacturing sector the effect of offshoring is positive on all aspects of firm performance except wages, where there is basically no effect at all. Offshoring therefore has net positive effects on the manufacturing sector of the UK economy.

In particular we find that as offshoring increases in an industry so, too, does employment in the average firm within that industry. Such a finding is evidence against the common fear that offshoring is associated with job losses.

The finding is also in line with previous studies, using more aggregated industry-level data, that show industry-level outsourcing is not negatively related to industry-level employment – and that in some cases it is positively related. Our own research goes a step further, showing that offshoring in an industry is positively associated with other aspects of firm performance in addition to employment.

The results for the services sector are similar, although they differ in a couple of significant respects. As in the manufacturing sector, the effect of offshoring on employment and output for the average firm is positive; unlike in the manufacturing sector, however, the effect on wages is negative, whereas the effect on labour productivity and exports is statistically insignificant.

While offshoring in the services sector also leads to employment gains, then, the average wage paid by firms appears to decline as offshoring increases. This, in contrast to the scenario in manufacturing, may be in line with the idea that more high-skill activities are being offshored in the services sector: hence there are fewer skilled workers employed in a firm, leading to a fall in the average wage.

According to our calculations, a one per cent increase in offshoring increases employment in the average firm in the manufacturing sector by 0.147 per cent and output by roughly 0.2 per cent. In the services sector the increases are 0.045 per cent and 0.06 per cent respectively.

Between 1994 and 2004 offshoring increased by 35 per cent in manufacturing and almost 48 per cent in services. If the same changes were to occur again the increase in employment would be five per cent in manufacturing and two per cent in services, while the increase in output would be 6.8 per cent and 2.9 per cent respectively. In the services sector the average wage paid by firms would be expected to drop by 2 per cent.

For the average firm this would translate to an increase of six employees per firm in manufacturing and one in services, as well as sales increases of £600,000 and £237,000 respectively.

Taking all of these effects together, the net impact of offshoring during the sample period has been close to 100,000 additional jobs and £10bn in turnover. These figures, which are based on conservative assumptions, are obviously substantial.

Conclusions: opportunities and challenges

This report has focused on the economic effects of offshoring in general and the implications for the UK economy in particular. As was noted at the outset, we live in an increasingly globalised world, and growing offshoring activity – fuelled by some of the very same drivers as globalisation itself – is a manifestation of that phenomenon.

Though growing in prevalence, offshoring is not as pervasive as media headlines often imply; nor does it largely involve multinationals in rich countries setting up affiliates in poor countries. Most offshoring business is still between OECD economies, though at the margin India and China are increasing in importance.

We reviewed secondary evidence that suggested offshoring tended to be associated with productivity improvements and overall had benign employment consequences (in the sense that employment effects were either neutral or modestly beneficial).

We went beyond that secondary evidence, however, in assembling a purpose-built dataset to investigate in more detail the performance characteristics of UK enterprises that offshore. Our findings show that it tends to be high-performing firms that offshore; and that doing so results in increased turnover, improved productivity, increased exports and **higher** employment.

Clearly, from an economy-wide perspective, activities that generate these results are to be welcomed rather than discouraged. Economic policy should therefore not be targeted at obstructing the process.

Equally clearly, it must be acknowledged that offshoring does lead to increased job turnover and is a contributory factor in changing the skill/job mix within an enterprise and the wider economy. Policy should therefore help smooth adjustment.

This does not mean, however, offshoring-specific adjustment policies. After all, offshoring is a minority contributor to job turnover. Rather it means continued investment in skill upgrading to increase adaptability and facilitate transition from one job to another; and continued investment in research and development to sustain new business.

In sum, offshoring is not a phenomenon to be feared. Rather, like other manifestations of globalisation, it is a phenomenon to be embraced and whose benefits are there to be exploited.

Key findings

- Offshoring creates jobs and boosts turnover within the UK economy.
- For manufacturing firms, offshoring is positively associated with all aspects of business performance – bar wages, which exhibit little change.
- This means employment increases for the average firm and the industry as a whole. It also results in increased turnover, higher labour productivity and more exports.
- Findings are similar in the services sector, with clear employment gains, improved productivity and increased exports.
- The only difference is a decline in average wages – possibly a consequence of a changing mix of skills.
- Most UK multinationals have a presence in other OECD countries. Contrary to common perceptions, few have a presence in India or China.
- UK firms are more likely to offshore operations to countries that are relatively large, relatively wealthy, relatively close to the UK and English-speaking.
- They will also have an abundance of human capital, a good information/communication technology structure and a 'market-friendly' policy environment.

Some important numbers

- Offshoring was responsible for an estimated 3.5 per cent of job losses in the UK in 2005. But this research shows that job gains by far outweigh the losses.
- Between 1994 and 2004, offshoring created 100,000 extra jobs in Britain (net) and increased turnover of British firms by £10bn.
- During this period offshoring increased by 35 per cent in manufacturing and almost 48 per cent in services.
- If the same changes were to occur again the net increase in employment would be five per cent in manufacturing and two per cent in services, while the net increase in output would be 6.8 per cent and 2.9 per cent respectively.
- For the average firm this would translate to a net increase of six employees per firm in manufacturing and one in services.
- The average wage paid in the service sector would be expected to drop by 2%.
- 96 per cent of UK multinationals in the manufacturing sector have at least one subsidiary in OECD member nations, while just 20 per cent have subsidiaries in non-OECD countries.
- Only 4.5 per cent of UK multinationals in the services sector and eight per cent in the manufacturing sector have subsidiaries in India or China.

Report authors

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About GEP

GEP – the Globalisation and Economic Policy Centre – is the major centre in Europe studying the impacts of globalisation and economic policy.

One of the biggest of its kind in the world, the centre has an impressive international reputation. Its academics have advised the Treasury, the Commonwealth, the OECD, the World Bank and the WTO.

GEP is based at the University of Nottingham and is substantially funded by grants from the Leverhulme Trust.

In January 2008 it opened GEP in Malaysia at the purpose-built University of Nottingham Malaysia Campus, 30km from Kuala Lumpur.

The first-ever branch campus of a UK university abroad, Semenyih serves an international community of students from more than 50 countries.

In November 2008 it will launch GEP in China at the University of Nottingham, Ningbo, China.

GEP is keen to promote its research work and is committed to communicating its expertise through the media and to assisting journalists whenever able.

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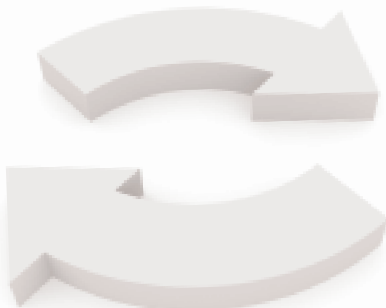

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