The University of Nottingham

GEP
Leverhulme Centre
for Research on Globalisation and Economic Policy

Newsletter

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GEP Under New Management

The distinguished economist Professor Daniel Bernhofen has been appointed as the new Director of GEP, the Globalisation and Economic Policy Centre. He succeeds the Centre's founder, Professor David Greenaway, who is taking up the post of Vice-Chancellor of the University of Nottingham. Professor Bernhofen is renowned for his work on international trade, international industrial organization and applied microeconomics. Since joining GEP in 2005 he has been a Research Fellow and the Co-ordinator of the Centre's *Theory and Methods* Programme. Previously he taught in the United States at Clark, Brandeis and Tufts Universities and in Germany at the University of Ulm.

Professor Greenaway who founded GEP in 2001 and has recently overseen the landmark opening of a branch of its Centre in Malaysia and imminent launch of a centre in China, said: "I'm proud to hand over to my successor in the knowledge that GEP is entering such an exciting new chapter in its story. Daniel has been one of the key figures in helping turn the Centre into a national asset with real international visibility. I am confident that under his leadership GEP's research and outreach activity will flourish." During the past seven years GEP has won recognition as a leading centre internationally, studying the effects of globalisation and economic policy. It is funded primarily by grants from the Leverhulme Trust. GEP academics have advised the Treasury, the Commonwealth, the OECD, the World Bank and the WTO. Professor Bernhofen said "David has done a fantastic job in building up the Centre. We have a great team to work with and I look forward to steering GEP in its next phase."


Daniel Bernhofen

Professor Bernhofen's own work has appeared in the *American Economic Review*, the *Journal of Political Economy*, the *Journal of International Economics* and *Economic Theory.*

Offshoring Under the Spotlight at GEP Conference

By Jonas Varnauskas

Are offshoring scare stories true? Or do gains outweigh losses? Academics and policy-makers from around the world met on 20th and 21st June at a conference hosted by GEP, in Nottingham, to address the growing and controversial trend towards sending jobs abroad and discuss the implications of the 'offshoring' phenomenon. Economic experts from leading universities, among them a former key adviser to President Clinton, delivered talks on this contentious issue. Representatives from other organisations including the Organisation for Economic Co-operation and Development and the New York Federal Reserve Bank also participated.

The conference was launched with the presentation of *The World Economy Annual*

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Lecture, by Elhanan Helpman, Professor of International Trade at Harvard University, who presented his latest research findings on international trade, institutional frictions and labour market adjustments. Alan Blinder, Professor of Economics at Princeton University and a one-time economic adviser to the Clinton Administration, also gave a keynote address. Professor Blinder looked at the magnitude of the potential offshoring boom in the US and its possible effects on the labour market. He estimated that 20-30 million US jobs will become offshorable in the next 10 to 20 years provoking a difficult transitional period which could only be alleviated by a prudent policy measures package aimed at improving the safety net, introducing changes in the education system as well as making greater use of the comparative advantage the US holds – innovation and what Professor Blinder simply described as 'the new stuff'.

The conference continued with a policy forum sponsored by the Royal Bank of Scotland (RBS) and chaired by Andrew McLaughlin, Group Chief Economist and Group Director, Communications at RBS, with presentations given by guests from the UK government . Heather Booth di Giovanni (UK Trade and Investment, Department for Business, Enterprise and Regulatory Reform) provided evidence of interest shown by UK companies in strategies that would potentially allow them to make better use of globalisation by exporting their production. James Watson (Department for Business, Enterprise and Regulatory Reform) confirmed that the UK has recently witnessed a change in the structure of its economy, with the services sector establishing itself as the cornerstone of the economy. He claimed the new government policies, namely enterprise, innovation and manufacturing strategy, would enable the country to embrace successfully the ever-changing business environment. Jonathan Portes (Chief Economist, Department of Work and Pensions) stressed the importance of flexibility in the labour market and the need to improve the quality of retraining programmes as well as adult education. This, he claimed, should provide a greater feeling of security in the increasingly volatile labour market.

Following the policy forum, researchers from around the world presented the findings of their new research which explores many of the 'myths' surrounding a practice that has engendered widespread public distrust. Richard Upward, from GEP, University of Nottingham, presented his paper 'Employment, Job Turnover and the Trade in Producer Services: Firm-Level Evidence' (with Alex Hijzen and Peter Wright). It provided the first firm-level

Conference delegates: Eiichi Tomiura and Robert Elliott

evidence on the effects of offshoring on the labour market. The link between job losses and greater job turnover and imports of intermediate services was not found. In addition, the presenter concluded that firms importing those services experienced faster employment growth than their non-importing counterparts. (See a more detailed article about his findings on page 8 of this issue). Ingo Geishecker from the University of Göttingen delivered his paper 'Globalisation and Job Loss Fears: An Empirical Analysis with Micro Data' that was concerned with the impact of outsourcing and import penetration level on perceived job security. Using industry-level outsourcing and trade measures in combination with a large household panel survey, the paper concluded that outsourcing to low-wage countries was found to have detrimental effects on the psychology of workers while outsourcing to high-wage countries had a positive one. Mary Amiti from the New York Federal Reserve Bank, in her paper 'Trade, Firms and Wages: Theory and Evidence' (with Don Davis), looked at the effects of trade liberalisation on wages across heterogeneous firms. The key predictions from their model are that a fall in output tariffs lowers wages in import-competing firms but boosts wages in exporting firms. Similarly, a fall in input tariffs raises wages in import-using firms relative to those in firms that only source locally. The findings were confirmed with Indonesian manufacturing census data. Other speakers included Giorgio Barba Navaretti (Milan University), Claudia Buch, (University of Tübingen), Peter Egger, (University of Munich), Karolina Ekholm (Stockholm University), Joseph Francois and Julia Wörz (Vienna Institute for International Economic Studies), Ingo Geishecker (University of Göttingen), Alex Hijzen (OECD), Eiichi Tomiura (Yokohama National University), and Liza Jabbour and Richard Kneller (GEP, University of Nottingham).

GEP's new China branch will be launched at the University of Nottingham's China Campus in Ningbo in November 2008

(see page 10 for details of the launch conference)

Administration Building, University of Nottingham's China Campus

The Economic Impact of Offshoring: New GEP Research

The GEP Offshoring Conference coincided with the publication by GEP of the largest-ever UK study into the economic impact of offshoring. GEP's research, which analysed data from 66,000 UK firms, found that offshoring – contrary to public perceptions – actually helps boost employment in the UK. GEP's research into the effects of offshoring is presented in a 120-page report, *The Economic Impact of Offshoring.*

David Greenaway, one of the study's co-author, said:

"Offshoring is not a phenomenon to be feared – it should be embraced and its benefits exploited. People are worried their jobs are being exported to countries like India and China, where labour is cheaper, but the picture is far more complex and much more positive. It would seem that firms that offshore part of their production process or service provision overseas become more efficient. This boosts productivity and turnover, and as a result these firms grow and end up employing more people at home, not fewer. But we need to invest continually in upgrading the skills of British workers to increase their adaptability and help smooth the transition from one job to another."

This research was also featured in an article in *The Economist* (June 2008). The Full Report is available on the GEP homepage at www.gep.org.uk

GEP Report on Offshoring

GEP Research Seminars in Autumn 2008

22nd September	Dave Donaldson, LSE
29th September	Liza Jabbour, GEP University of Nottingham
6th October	Massimo Del Gatto, University of Cagliari
13th October	Emanuel Ornelas, LSE
20th October	Dimitra Petropoulou, University of Oxford
27th October	Supreeya Virakul, University of Birmingham
3rd November	Duo Qin, Queen Mary, University of London
10th November	Catia Montagna, University of Dundee
24th November	Paola Conconi, ECARES, Belgium
1st December	Monika Mrazova, University of Oxford
8th December	Lars Persson, Research Institute of Industrial Economics, Sweden

Elhanan Helpman

Trade and Labour Market Outcomes

Professor Elhanan Helpman of Harvard University presented his latest research findings on international trade, institutional frictions and labour market adjustments at *The World Economy Annual Lecture* on 19th June, 2008 sponsored by Wiley-Blackwell. His presentation is summarised here by Shaun Pettipiece.

Trade and labour economists are increasingly faced with specific questions relating to market frictions and international interdependence. What are the impacts of one country's labour market institutions on its trade partners? How does the removal of trade impediments impact countries with different labour market institutions, such as multilateral trade negotiations? What is the impact of trade on inequality and unemployment? More generally, the focal point of this discussion centres on the question: how do labour market frictions impact interdependence across countries? Furthermore, is there a difference . If so, what?

This lecture drew heavily upon a number of recent papers written by Professor Elhanan Helpman in collaboration with his research colleague at Harvard, Oleg Itskhoki, and Professor Stephen Redding, London School of Economics. This work seeks to provide an alternative conceptual framework for examining the distributional consequences of trade liberalisation in response to some of the incompatibilities of neoclassical trade theory and the Stolper-Samuelson Theorem with empirical evidence. A stated intention was to shift thought in the direction of trade at the level of the firm by paying greater attention to often ignored features of labour markets, which can help achieve the more detailed level of insight presented. Of special interest is the impact of a country's labour market rigidities on its trade partner, and differential impact of lower trade impediments on countries with different labour market institutions.

This work takes on extra significance given the contextual relevance with the EU's current focus on labour market policies through schemes such as the European Employment Strategy. These active labour market policies, which form part of the broader Lisbon strategy, aim to achieve greater job flexibility and employment security in order to turn Europe into a competitive and dynamic economy.

The model of international trade presented had the familiar framework of two countries, two sectors (both of which could be generalised) and labour as the sole input; yet deviated in crucial areas from the existing literature. Having two sectors is a significant departure and has important compositional effects, permitting evaluation of some macroeconomic issues. The homogeneous sector serves as a numéraire, operating under perfect competition and absorbing various shocks. Concurrently there also exist many differentiated goods sectors, varying in demand, production technology and labour market frictions

Incorporated into the model are several key features of product and labour markets, interacting in important ways to correspond with empirical evidence. Firm heterogeneity is as described in Melitz (2003), with brands of a differentiated product produced under monopolistic competition. In contrast with the majority of the literature, labour economics assumes searching and matching frictions within each differentiated sector (in the form of substantial differences in workforce composition across firms, positive unemployment variation across industries, etc.), which give rise to equilibrium unemployment.

Continued on next page

Once matched together, workers and firms must engage in the wage bargaining process, followed by production. Studying the interaction of hiring costs and tightness in labour markets unearths the intuitive result: larger hiring costs cause the industry to be less flexible and competitive. The analysis becomes more pertinent by assuming that one country has higher hiring costs, making it the 'rigid' country (and the other becomes the

Paul Hoffman (Wiley-Blackwell),
David Greenaway and Elhanan Helpman

'flexible' country). From this point we see that total factor productivity is higher in the flexible country, enabling a higher proportion of firms in this economy to export. Additionally, despite the existence of labour market frictions, a reduction of trade costs raises total factor productivity in both countries, although unequally. A country improving its labour market institutions finds productivity shifting in its favour, and against that of the trade partner. If labour market institutions are improved, the probability of job 'matching' increases. Consequently, the differentiated sector becomes more attractive and hence workers move away from the homogeneous sector, in the process going from certain employment to a chance of being unemployed. If the frictions are relatively low, reducing them reduces unemployment but if they are relatively high, reducing them actually increases the rate of unemployment – the interaction of opposing compositional and sectoral effects results in an 'inverted u-shape' relationship. With regard to welfare, both countries gain from trade, with the flexible country gaining proportionately more. A country benefits by lowering frictions in its labour market whilst harming the trade partner, creating a 'beggar-thy-neighbour' situation. However, both countries benefit from a simultaneous proportional lowering of labour market frictions – a result that could inform the EU in its proposed labour market reforms. Nevertheless, the implication is that trade and labour market policies are complementary to each other. Despite positive welfare effects, lowering trade impediments can increase unemployment in one or both countries. Differences in rates of unemployment do not necessarily reflect differences in labour market institutions, as is true in the global economy.

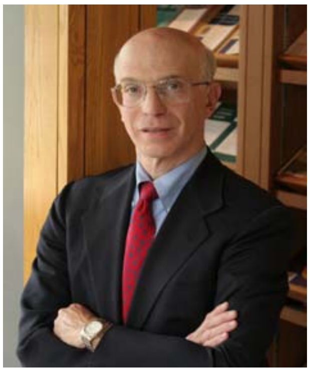
One important extension of the above model is to incorporate heterogeneous workers, giving firms an incentive to screen workers, by incurring a screening cost. This enables the model to explain a number of stylised facts from the empirical literature on recruitment. In equilibrium, more productive firms have larger revenues, allowing them to screen to a higher ability threshold, employ workers with a higher average ability and pay higher equilibrium wages. The magnitude of screening costs can strongly influence unemployment rates: if they are too high then no screening occurs and the outcomes are unaffected but if they are low enough sectoral unemployment will increase as labour market frictions (in the form of search costs) rise. Economy-wide unemployment hinges on the number of workers searching in the differentiated sector, although higher screening costs unambiguously reduce aggregate unemployment due to compositional effects.

The conclusions offered by Professor Helpman indicate that globalisation could be a source of unemployment and increased residual inequality, and it is possible this effect is direct. Moreover, in a world of integrated countries where trade plays an important role, simple one-sector macro models are inadequate for assessing active labour market policies because sectoral composition is essential. Analysis of labour market reforms has to be done in a framework that takes into account trade and the compositional effects that trade generates.

Further Reading

Helpman, E., Itskhoki, O., Redding, S. 'Inequality and Unemployment in a Global Economy', Economics Department, Harvard University 7/2008

Helpman, E., Itskhoki, O., Redding, S. 'Wages, Unemployment and Inequality with Heterogeneous Firms and Workers', Economics Department, Harvard University , 5/2008



Alan Blinder

Offshoring: Big Deal or Business as Usual?

How 'big' is offshoring? Is it just the normal expansion of international trade, or the pathway to the next industrial revolution? In his recent presentation at the GEP Offshoring Conference, Professor Alan Blinder from Princeton University revealed his answers, based on his latest research estimating the scale of the offshorability of US jobs. Professor Blinder's presentation is summarised here by Jonas Varnauskas.

Offshoring has had its fair share of attention in the political arena, where it is often portrayed as a source of great evil lurking in the shadows prepared to put a knife in the back of the innocent and unassuming worker. Economists and other professionals, on the other hand, have adopted a somewhat more reserved view, downplaying its significance. Alan Blinder has recently dared to challenge this view claiming that offshoring is, as he put it himself, "a big deal". His picture is that of an offshoring boom in a couple of decades time followed by a long and painful transition marked by a malaise in the labour market. However, Alan Blinder argues that new prudent policy measures aimed at a number of areas can help weather the storm.

There are two main reasons why Alan Blinder is expecting a turbulent transitional period. The first one is best understood by putting all occupations into two categories: personal and impersonal. The former is defined as "impossible to deliver at a distance or when delivered so declines in quality substantially" i.e. doctors, nurses etc. Impersonal ones, on the other hand, can be carried out "at a remote location and transmitted electronically with no or very limited loss of quality services". It is of no great secret that information and communication technologies are progressing in leaps and bounds, meaning that more and more jobs are falling into the second category and therefore becoming potentially offshorable. While giving the presentation, Alan Blinder treated the audience to an example of possible changes in the way higher education is delivered. He argued that in the future we may abandon the old-school flesh-and-bones-lecturer-stands-in-front-of the-audience-and-talks lectures and switch to something that at the moment belongs in the science fiction world: a lifelike hologram of a well-educated lecturer residing somewhere in India speaking perfect English and having video and audio contact with students but demanding a more modest salary than his colleagues in Europe or the US, which, as Alan Blinder joked, would prove to be a great cost-saver for the chancellor of the university.

The second reason Alan Blinder declares offshoring "a big deal" is linked to the changes in the global labour market, which have led to a big increase in the worldwide pool of skilled workers. This is a result of greater openness and economic activity in China and former Soviet Union countries together with the burgeoning Indian economy– a rise which some scientists estimate to be about 300 million people. Moreover, one of the mentioned countries, India, posseses a quality which makes it a very attractive destination for offshoring: good command of the English language.

This, coupled with the fact that five-sixths of all US workers are employed in the service sector, creates an unsettling picture of the future to come. Even though the mainstream view is that of the transitional period not being worrisome, Alan Blinder argues it will be very long, significant and will pose a large number of difficult problems including frictional unemployment, structural unemployment caused by newly emerged skill mismatch induced by offshoring as well as Keynesian unemployment resulting from greater size of imports. According to his estimates, 20-30 million of all US jobs will potentially become offshorable within a decade or two. The result follows from estimation involving a subjective ordinal index which was

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chosen after concluding the objective one was inadequate. Based on O*Net job descriptions, Alan Blinder's scale accounts for such "human presence" factors as assisting and caring for others, establishing and maintaining interpersonal relationships, coaching and developing others etc. Somewhat unsurprisingly, those most in danger are computer programmers, telemarketers and people working in similar occupations. Contrary to what common sense would suggest, offshorable jobs have slightly higher educational requirements than non-offshorable ones. It is also worth mentioning that correlation between offshorability and wages is equal to zero. In other words, securing a well paid job in no way guarantees protection from offshorability and therefore potential unemployment. Alan Blinder also revealed that the effect of offshorability on wages was already felt strongly in the year 2004: according to his estimates the penalty was already 14% for offshorable jobs.

How, then, can the US weather the upcoming storm? In Alan Blinder's opinion, relief should come through three main channels: improving the safety net, preparing the workforce for the future and climbing the comparative advantage ladder. At the moment, the US offers very little security for those employed in the service sector, which has to change if the country is to have a less painful transition. In addition, Blinder claimed improvements could be made in health insurance, pension portability, wage-loss insurance as well as job training. The education system is the second target in the battle against labour market problems. For a long time the emphasis has been on the amount and quality of education but Alan Blinder thinks this needs to change. According to him, education should be aimed at high-end personal services in addition to more importance being given to non-routine problem solving, something the US educational system has been ignoring for a while. Americans would further benefit from more vocational education as well as making greater use of innate comparative advantage of being human.

Finally, while Alan Blinder believes the US will be helped by the falling exchange rate, his hopes of a better future lie with innovation or what he simply described as "the new stuff" – the comparative advantage the US holds.

However, not all is as bad as it may sound. Many US companies will have the opportunity to benefit from offshoring by cutting costs and improving their productivity and therefore gaining competitiveness in the global market. Furthermore, the country may well expect some onshoring. It is possible that the lifelike hologram of a lecturer will be that of a Princeton Professor and not someone in Bombay. Offshoring, like many other aspects of globalisation, can be both detrimental and beneficial.

Further Reading

Alan Blinder, 'How Many U.S. Jobs Might Be Offshorable?' CEPS working paper no. 142, March 2007.

Alan Blinder, 'Offshoring: Big Deal or Business as Usual?' CEPS working paper no. 149, June 2007

Alan Blinder, 'Offshoring: The Next Industrial Revolution?' Foreign Affairs, March/April 2006, pp. 113-128.

More articles can be found at :
*www.princeton.edu/~blinder/*articles.htm

Richard Upward

Trade in services by UK firms: does offshoring cost jobs?

Service offshoring, such as shifting call centres from the UK to India, looks like another 'scare story' of job losses on top of manufacturing offshoring. Richard Upward, GEP Research Fellow, in the following article argues that this worry is not justified.

Offshoring occurs when a firm purchases part of its production process from overseas. The firm might use an independent supplier, in which case offshoring is equivalent to outsourcing from abroad. Or it might use an affiliated company, in which case offshoring will form part of the firm's multinational operations. In the 20th Century it was typically assumed that some of the physical stages of the production process would take place overseas (where unskilled labour is cheaper), while the parts of the process which required high-skilled labour (such as research, design, IT, after-sales service) would take place at home.

But in the 21st Century, firms can trade service inputs as well as goods. In fact, transport costs for some service inputs have effectively fallen to zero because information can be transmitted electronically. A firm in Manchester can buy architectural plans, IT support or accountancy services from a firm in Mumbai at little additional cost compared to a domestic supplier. This has led to fears that firms will start to offshore ever larger parts of the production process, leading to job losses for workers who were previously unaffected by competition from low-wage economies. Alan Blinder, for example, has suggested that as many as one-third of U.S. jobs are potentially offshorable.

A group of GEP researchers have been investigating these issues by examining data on 20,000 firms who responded to the Office for National Statistics' International Trade in Services inquiry. It is important to realise that offshoring is a two-way street. UK firms export as well as import service inputs. In fact, Figure 1 shows that the UK trade balance in business services, IT and communications, construction and insurance services is positive and growing. So, even if firms which import service inputs were laying workers off, we might expect that firms which can now export services would grow.

The vast majority of the trade in services takes place between rich countries. In Figure 2 we show the value of imports, exports and the trade balance for various regions. Trade with firms in Europe and with North America dwarfs trade with developing countries. This suggests that the offshoring is not primarily driven by cost considerations; UK firms are not purchasing service inputs in order to save on labour costs.

Figure 1: UK trade in selected services 1991-2006

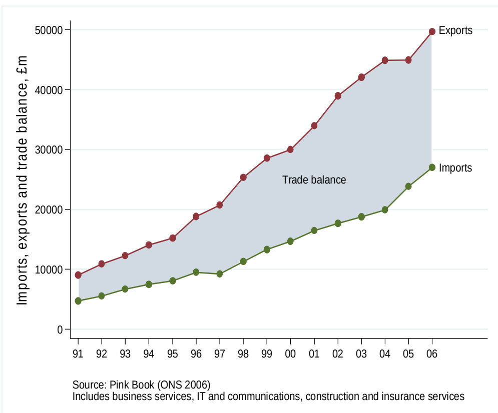
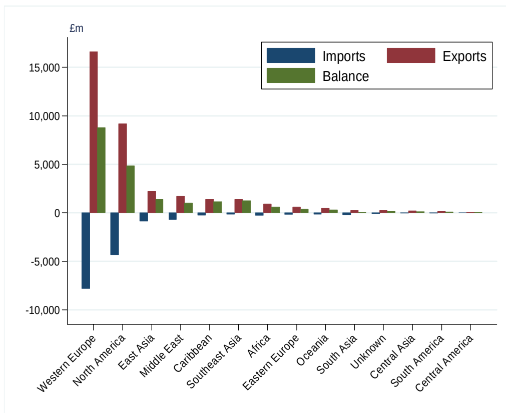


Figure 2: UK trade by region, 2003



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We then examined those firms who trade services, and compared them to firms which do not. Unsurprisingly, firms which trade services tend to be much larger than those which do not. What is more interesting is whether firms which start to trade services destroy more jobs than those which do not. This finding would support the popular view that offshoring destroys jobs. But in fact we find the reverse. The first column of Table 1 shows that firms which started to import services over the period 1997–2003 actually grew about 5% faster than firms which did not start to import services, after controlling for firms' characteristics in 1997. We also find that increasing the value of service imports has an additional positive impact on employment growth.

Firms which started to import services ... actually grew about 5% faster than firms which did not start to import

However, this result might merely reflect the fact that firms' employment growth and offshoring strategies are both correlated with some third factor. For example, firms which receive a sudden boost in demand might hire more workers and simultaneously increase their demand for service imports. In the second column of Table 1 we therefore control for the change in sales over the same period. Introducing sales growth reduces the size of the coefficients and we cannot reject the hypothesis that importing services has no effect on employment growth. Thus, at the firm-level, we find that offshoring is not correlated with job loss. But there are several important caveats. First, this is very much a partial equilibrium result. We assume, in effect, that offshoring only affects those firms that do it, but leaves other firms unaffected. But, in reality, the actions of firms are interdependent. Firms which import services may prosper at the expense of their competitors. The second caveat is that these firms might be replacing services which were previously supplied by other UK companies with services from overseas. In this case, the impact of offshoring will be on third-party suppliers, and not on the offshoring firm itself. Finally, it might be that firms which purchase service inputs from abroad do not change their overall employment levels, but rather they change the types of workers they employ. For example, a firm might lay off call-centre operatives and hire more managers to facilitate the offshoring arrangement. To investigate this requires data on the workers within the firm, and this is a future research priority.

Future research will be required to deal with each of these caveats. We intend to examine the impact of offshoring on other firms in the same industry, so that we can pick up general equilibrium effects. We also intend to examine whether firms which import services are actually replacing services which they previously purchased domestically. Finally, we hope to look at data on individual workers within these firms to establish whether the skill composition changes as a result of offshoring.

Table 1: Trading services and employment growth: 1997-2005

Dependent variable: employment growth	Unconditional model	Conditional on sales growth
Change in import status	0.0508 (0.0174)	0.0104 (0.0145)
Change in value of service imports	0.0312 (0.0146)	0.0191 (0.0121)
Change in sales	—	0.5095 (0.0055)
Sample size	19,114	19,114
R^2	0.2932	0.5246

Further Reading

"Offshoring: the next Industrial Revolution?" in Foreign Affairs March/April 2006.

Alex Hijzen, Mauro Pisu, Richard Upward and Peter Wright. GEP working paper 2007/37, available from http://www.gep.org.uk/leverhulme/publications/Papers/2007/2007_37.php.

See http://www.statistics.gov.uk/downloads/theme_economy/ITISreviewFeb03.pdf.

GEP China Conference

To mark the launch of GEP at the University of Nottingham in Ningbo, China, GEP will host an international conference at Ningbo on 6th and 7th November 2008 on

'China and the World Economy'

The speakers are:

Peter Egger	University of Munich
Robert Elliott	University of Birmingham
Belton Fleisher	Ohio University
David Greenaway	GEP, University of Nottingham
Alessandra Guariglia	GEP, University of Nottingham
Fan He	Chinese Academy of Social Sciences
Weiping Huang	Renmin University of China
Albert Hu	National University of Singapore
Tong Jiadong	Nankai University
Fuku Kimura	Keio University, Japan
Kui-Wai Li	City University, Hong Kong
Innwon Park	Korea University
Shujie Yao	GEP, University of Nottingham
Xianguo Yao	Zhejiang University
Yang Yao	Peking University
Zhihong Yu	GEP, University of Nottingham
Jun Zhang	Fudan University

This Conference will also feature the inaugural *The World Economy China Lecture*, to be presented by Professor **Shujie Yao** on **'Understanding China's Stock Market Bubble and Crash during 2006-2008: An Economic and Psychological Analysis'** on 6th November.

Leverhulme Globalisation Lectures

Martin Wolf

Associate Editor and Chief Economics Commentator, *The Financial Times*

Fixing Global Finance

22nd October 2008

Nicholas Crafts

University of Warwick

The Changing Place of Britain in the World Economy: A Long-Term Perspective

19th November 2008

David Blanchflower

Bank of England Monetary Policy Committee and Dartmouth College

Fear, Unemployment and Migration

29th January 2009

Liza Jabbour

International Slicing of the Value Chain

In this article GEP Research Fellow Liza Jabbour reveals her latest findings on firms' offshoring strategies based on a detailed survey of French companies.

Offshoring is changing the patterns of international trade. A significant share of international trade corresponds to flows of intermediate inputs both within and across the boundaries of the firm. The 2002 UNCTAD report (UNCTAD, 2002) shows that foreign affiliates of multinational enterprises were responsible for 35% of world trade and 11% of world GDP in 2001. Through offshoring, firms have the possibility to "slice-up" their production process at the international level. They can locate the segments of their production process in different countries, exploiting their comparative advantages. The sharp increase in offshoring activities and vertical specialisation has raised intense debates among academics and policy makers, for example on the fears of job losses from developed towards countries low wage developing economies.

So far, the question of international vertical specialisation has been mainly addressed theoretically. Grossman and Helpman (2003, 2005), Antras (2003), Antras and Helpman (2004, 2008) are examples of the theoretical literature trying to explain a firm's offshoring strategy. This literature typically focuses on the importance of firm heterogeneity and of sector characteristics (headquarter intensity, capital intensity) but conclusions differ significantly in the sorting pattern of heterogeneous firms and offshoring choices. As stated by Antras and Helpman (2004): "Empirical evidence is needed to discriminate between [them] the models".

My recent research aims at providing empirical evidence on the determinants of firms' offshoring strategy. The analysis is based on the "International intra-group exchanges" survey released by the French Ministry of Economy for the year 1999. This survey provides very rich information on the structure of French trade and allows the analysis of the offshoring strategy by combining firm level, industry level and country level characteristics. Figure 1 shows that the major share of the offshoring activity by French firms takes place outside of the boundaries of the firm and in high income countries.

Figure1: The Offshoring Structure

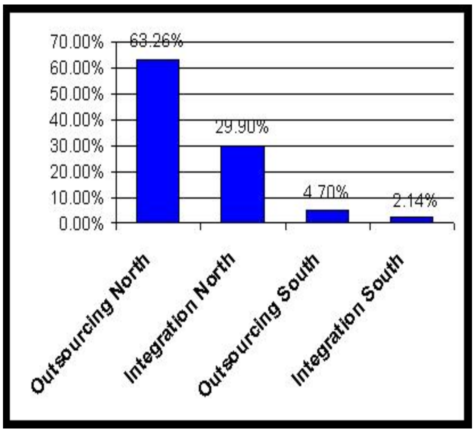
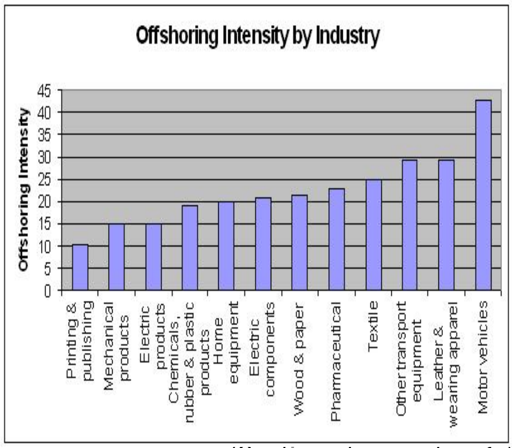


Figure 2 illustrates the heterogeneity of the offshoring strategy across industries. Further, according to the survey, firms also differ significantly in terms of their motivations of using intra-firm trade. The majority of the firms pointed to the control of the quality of the production (63%) and the marketing strategies and the after-sale service (54%) as the motivation to supply

Figure 2: The Offshoring Intensity by Industry



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within the group. Another important matter seems to be the cost reduction: 66% of the firms prefer intra-group trade in order to reduce organisational costs, whilst 60% of them stressed the importance of being supplied with more stability and at lower costs.

The study then examines the choice between vertical FDI, partnerships and outsourcing based on a multinomial logit estimation. It mainly focuses on three aspects of offshoring that have received particular interest in the theoretical literature: firm heterogeneity, asset specificity and search costs. Our first result reveals the importance of firm heterogeneity. Productivity and firm size reduce the probability of vertical integration relative to outsourcing and enhance the probability of establishing partnerships in comparison to outsourcing and FDI. More productive and larger firms offshore their production through partnerships, firms with intermediate levels of productivity and size establish arm's length transactions with independent suppliers, and relatively small and less productive firms offshore through vertical integration. This suggests that partnerships and outsourcing agreements are associated with higher organisation fixed costs than vertical integration and confirms the theoretical assumption by Grossman et al (2005). The second point considered in the paper is related to asset specificity. The transaction costs theory predicts that, when input specificity is significant, transaction costs related to outsourcing are high and vertical integration is preferred. The property rights theory puts forward that when the transaction is intensive in the final good, the producer's specific investment vertical integration is optimal. Both of these hypotheses are confirmed in the empirical results. Measures of headquarter services intensity (represented by R&D and capital intensities at the firm level) and of input specificity increase the probability of FDI in comparison to outsourcing and partnerships. Finally, another significant element of the organisational choice of offshored production is the market thickness in the exporting country. Market thickness will determine the search effort required by each final good producer to find a suitable partner. When the search costs are very high, vertical integration is optimal. Again, our results confirm this assumption. The market thickness variable reduces the relative probability of vertical FDI in comparison to outsourcing as well as partnerships.

The major share of the offshoring activity by French firms takes place outside of the boundaries of the firm and in high income countries.

This paper focuses on theoretical models based on transaction costs and the property rights theories of the firm, yet the literature on internationalisation also includes theoretical contributions based on alternative theories like the theory of managerial incentives and that of formal and real authority. A natural extension of this work will be to present empirical investigation of these alternative theories and to confront their validity in the explanation of the internationalisation strategy.

Further Reading

Jabbour, Liza, 'Slicing the Value Chain' Internationally: Empirical Evidence on the Offshoring Strategy by French Firms', *GEP Research Paper Series* 2008/02

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Grossman, G.M., Helpman, E. and Szeidl, A., 'Complementarities between Outsourcing and Foreign Sourcing', *American Economic Review* 95 (2005),19-24.

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Robert Feenstra

Nottingham Lectures in International Economics 2008: Robert Feenstra

In April 2008, we were delighted to welcome Robert Feenstra (University of California, Davis) to GEP to present the *Nottingham Lectures in International Economics,* on the topic of 'New Product Varieties, the Terms of Trade and the Measurement of Real GDP'. Robert Feenstra summarises his lectures as follows.

The first lecture focused on the gains from international trade when there are new varieties of imported goods. As more countries enter the world trading system, we can expect that the range and varieties of international traded goods will expand. Consumers benefit from access to this greater variety in much the same way as they benefit from lower prices. Feenstra has developed methods to measure the extent of consumer gain, and has applied these methods to the United States and other countries.

The second lecture shifted attention from import variety to export variety. From the point of view of producers, greater access to international markets due to tariff cuts or improved infrastructure means that export variety will expand. The expansion of variety acts like an increase in producer's prices, leading exporting firms to enter that sector. Evidence shows that exporting firms are more productive than non-exporting firms, so along with the expansion of export variety we can expect to see an improvement in industry productivity. For the economy as a whole, that means a rise in GDP and in aggregate productivity when export variety expands. Feenstra measures these effects for data including both developing and industrial countries. It is found that aggregate productivity is indeed correlated with export variety.

The final lecture combines the import side and export side into the measurement of real GDP. Past work on measuring real GDP, such as the Penn World Tables, give insufficient attention to the international trade of countries. With an increase in import variety leading to an effective fall in consumer prices, and an increase in export variety leading to an effective rise in producer prices, then the combined effect is to have an increase in the "terms of trade" (or relative price of exports) for the country. That rise in the terms of trade leads to an increase in real GDP or living standards of consumers. Feenstra measures these effects for a wide sample of countries. He shows how the calculations of real GDP in the Penn World Table can be adjusted to incorporate product variety in trade.

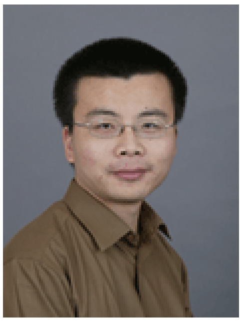
Nottingham Lectures in International Economics 2009

Professor John Sutton

London School of Economics

9th, 10th and 11th February 2009

For further details contact sue.berry@nottingham.ac.uk



Zhihong Yu

Development of Early Career Researchers and Capacity Building in GEP

One of GEP's most important strategic investments is the development of Early Career Research Fellows and PhD students. In this article, GEP's RCUK Fellow Zhihong Yu reviews GEP's capacity building strategies.

Capacity building – in terms of assistance in the development of Early Career Researchers (Post Doctoral Fellows and PhD students) - is one of the key strategic investments made by GEP. So how does GEP help young researchers to develop their careers at the very earlier stages and climb up the academic ladder?

Well, the numbers speak for themselves. Until this year, GEP has funded 18 completed Post Doctoral Fellowships (PDFs hereafter) varying from one to four years' duration. The majority of them (12 out of 18) now hold permanent academic positions in universities in the UK and Europe, of which two are now full professors, only six years after their GEP Fellowship (see table 1). There is also a non-negligible portion of Post Doctoral Researchers employed by government affiliates and prestigious international organisations such as the World Bank, OECD and European Commission, working on areas closely related to their post doctoral research. Currently, there are six GEP PDFs in place, conducting research on a number of frontier issues relating to globalisation such as offshoring, international migration, exchange rates, Chinese exports etc.

Table 1. Destinations of completed GEP postdoctoral fellows

Current Positions of former GEP Post Doctoral Fellows	Number (share)
Full Professors	2 (11%)
Associate Professors	5 (28%)
Lecturers	5 (28%)
Government affiliates	2 (11%)
International organizations (World Bank, OECD, EC)	3 (17%)
Other	1 (6%)

One may wonder what support GEP could offer to these Early Career Research Fellows. What are the distinct benefits GEP might provide? First, one main function of the GEP Fellowship is to help Early Career Researchers to build a solid publication foundation. For example, one former GEP Post Doctoral Fellow published 13 papers in refereed journals during his two and a half year Fellowship, and is now a full Professor only six years after his GEP Fellowship. Second, GEP fully engages the Early Career Research Fellows in its research events, including six annual conferences, 30 weekly research seminars , five public lecture series and one annual research retreat. This means every year GEP hosts the visits of many distinguished researchers from around the world to present their latest work on globalisation. This

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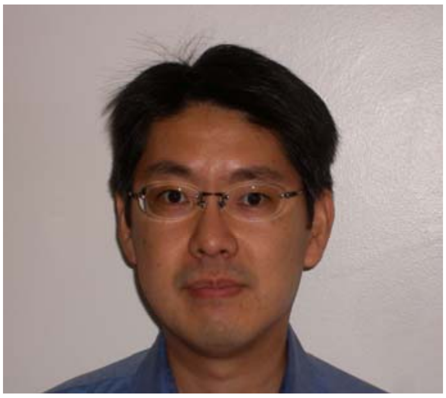
provides our PDFs with a fantastic opportunity to communicate with, learn from and build research networks with the world's finest international economists. Third, GEP also encourages its PDFs to participate in outward research activities, including presenting their work at overseas conferences or research visits. GEP PDFs regularly present their work in the world's major trade conferences such as the European Trade Study Group Annual Conference, the Midwest Trade Group Meetings in the US, and the Empirical Investigations in International Trade Annual Conference. Fourth, GEP PDFs also have the opportunity to interact and collaborate with over twenty GEP Research Fellows within Nottingham School of Economics. Finally, a distinguishing feature of the GEP PDFs is that every Fellow is assigned an administrative role within GEP. For example, organising the annual postgraduate conference and the weekly seminars, editing the *GEP Newsletter*, editing the GEP Research Paper Series, etc. This also helps young researchers develop some administrative skills that could turn out to be useful in the later stages of their career.

Besides the Post Doctoral Fellowships, PhD programmes are also an important part of GEP's capacity building strategy. To date GEP has provided 34 PhD scholarships to students from the world over to conduct research on globalisation related projects, of which 19 have already graduated. The majority (13) of them obtained teaching or research positions in universities, six of whom continued their research as Post Doctoral Fellows in GEP. Currently, 15 GEP PhD students are now working closely with their supervisors from GEP who specialise in a variety of important areas in international economics, such as trade and labour market, globalisation and firm level adjustment etc. Like the Post Doctoral Fellows, the PhD students are encouraged to present their work at overseas conferences, or visit overseas institutions. They also have access to a number of trade and firm level datasets to conduct highly original research fitted to their own research interests.

Overall, an excellent research environment for young researchers can be found in GEP.

New GEP Research Fellow

We are pleased to announce the appointment of Toshihiro Atsumi as a GEP Post Doctoral Research Fellow. Toshihiro has just completed a PhD thesis in the Nottingham School of Economics and joined GEP on 1st September 2008.



Toshihiro Atsumi

New GEP Research Papers

2008/16 Agelos Delis: *The Causal Effect of Exporting and Multinational Acquisition on TFP in UK: An Evaluation Method Approach*

Summary: This paper assesses the effect on TFP growth of a change in the status of a firm from domestic producer to either exporter or subsidiary of a multinational.

2008/15 Sugata Marjit and Biswajit Mandal: *Corruption and Trade in General Equilibrium*

Summary: This paper shows that greater corruption in labour-abundant countries will restrict the volume of world trade but they still may gain, while corrupt capital-abundant countries will promote trade and be worse off with an increasing degree of corruption.

2008/14 Rod Falvey, Neil Foster and David Greenaway: *Trade Liberalisation, Economic Crises and Growth*

Summary: This paper employs threshold regression techniques on five crisis indicators to identify "crisis values" and to investigate whether an economic crisis at the time of trade liberalisation affects subsequent growth performance.

2008/13 Matthew Cole, Robert J.R. Elliott and Supreeya Virakul: *Firm Heterogenity and Export Participation: A New Asian Tiger Perspective*

Summary: This paper investigates the relationship between firm heterogeneity and a firm's decision to export for Thai manufacturing firms. The paper breaks down FDI by country and region of origin to observe whether the behaviour of MNEs differs.

2008/12 Robert J.R. Elliott and Supreeya Virakul: *Multi-Product Firms and Exporting: A Developing Country Perspective*

Summary: This paper sheds additional light on the complex relationship between multinational enterprises, exporting and economic development in Thailand by making a distinction between single and multi-product firms.

2008/11 Artjoms Ivlevs: *Are Ethnic Minorities More Likely to Emigrate? Evidence from Latvia*

Summary: Using survey data on emigration intentions in Latvia, this paper shows that Russian-speaking minority individuals are more likely to go working abroad than ethnic Latvians.

2008/10 Rod Falvey, David Greenaway and Joana Silva: *International Competition, Returns to Skill and Labour Market Adjustment*

Summary: This paper uses a large matched employer-employee dataset to show that increased international competition increases the returns to skill and worker skill upgrading at the industry level.

New GEP Research Papers (continued)
www.gep.org.uk/research_papers

2008/09

David Greenaway, Richard Kneller and Xufei Zhang: *Exchange Rates, Exports and FDI: A Micro-Econometric Analysis*

Summary: Using data on UK manufacturing firms, this paper finds that exchange-rate movements have little effect on firm export participation but have a significant impact on export shares. The paper also investigates the effects of exchange-rate movements on the export behaviour of multinationals and finds important differences according to country of origin. Multinational firms originating from outside the European Union are less affected by changes in the exchange rate compared to those inside, whose reactions are similar to domestic firms.

2008/08

Marius Brülhart: *An Account of Global Intra-industry Trade, 1962-2006*

Summary: This paper describes global intra-industry trade using data on some 39-million bilateral trade flows over the 1962-2006 period. The share of intra-industry trade has been gradually increasing, accounting for 27 per cent of global trade in 2006 (measured at the five-digit level).

2008/07

Shujie Yao and Xiuyun Tang: *Airport Development and Regional Economic Growth in China*

Summary: Based on an augmented production function and a panel dataset covering all the provinces in China during 1995-2006, this paper finds that airport development is positively related with economic growth, industrial structure, population density and openness but negatively related with ground transportation. The results have important policy implications on regional airport development in China.

2008/06

Spiros Bougheas, David Greenaway, Kittipong Jangkamolkulchai and Richard Kneller: *Technology Gap, Foreign Direct Investment and Market Structure*

This paper develops and analyses an entry model that predicts that the likelihood that foreign firms enter a country increases with the productivity gap between foreign and domestic firms. The model is tested using firm-level data on acquisitions of British firms by foreign firms.

2008/05

Alexander Hijzen and Paul Swaim: *Offshoring, Labour Market Institutions and the Elasticity of Labour Demand*

This paper analyses the evolution of the elasticity of labour demand and the role of offshoring therein, using industry-level data for a large number of OECD countries.

2008/04

Jun Du and Sourafel Girma: *The Effects of Foreign Acquisition on Domestic and Export Markets Dynamics in China*

This paper establishes economically significant causal relationships between foreign acquisition and domestic and export markets dynamics in China.

2008/03

Jun Du and Sourafel Girma: *Multinationals, Access to Finance and the Exports of Private Firms in China*

This paper examines the relationship between access to finance, FDI and firm exports in China and shows that access to finance is much more important for exports, especially for politically-unaffiliated firms.

GEP Researchers

Internal Research Fellows

Professor Daniel Bernhofen (Director), Dr Marta Aloi, Dr Spiros Bougheas, Professor Richard Cornes, Dr Agelos Delis, Dr Bouwe Dijkstra, Professor Rod Falvey, Professor Sourafel Girma, Professor David Greenaway, Dr Alessandra Guariglia, Dr Tom Ivlevs, Dr Liza Jabbour, Dr Richard Kneller, Dr Udo Kreickemeier, Professor Chris Milner, Dr Arijit Mukherjee, Professor Doug Nelson, Professor Lina Song, Dr Richard Upward, Dr Peter Wright, Professor Shujie Yao, Dr Zhihong Yu, Dr Xufei (Florence) Zhang.

External Research Fellows

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Leverhulme Centre
for Research on Globalisation and Economic Policy

The Globalisation and Economic Policy Centre

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 OECD, the World Bank and the WTO.

GEP was established in the School of Economics at the University of Nottingham in 2001. Its research and dissemination activities are structured around four Research Programmes, linked by the common theme of globalisation:

1. Theory and Methods
2. Globalisation and Labour Markets
3. Globalisation, Productivity and Technology
4. China and the World Economy

GEP supports both basic scientific and policy-focused research. Its core staff comprises a group of Research Fellows based at Nottingham; a network of External Fellows from a number of universities in Western Europe, North America and Australia; and a Forum of Policy Associates based in the policy-making community. GEP publishes its own Research Paper Series, sponsors regular workshop programmes and conferences and supports a range of other outreach activities. For more information visit www.gep.org.uk.

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