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Nottingham Lectures in International Economics

In December 2004 GEP held its inaugural Nottingham International Economics Lecture. Jonathan Eaton, New York University, gave three lectures on the theme of 'The Firm in World Economy'.

Lecture 1 titled 'Firms, Technology and Global Economy' established the stylised facts about firms' participation in international markets in the data —what were labelled as four portraits. Professor Eaton emphasised the importance of differences in the characteristics of firms for understanding growth and technology at the cross-country level.

Lecture 2, titled 'Firms, Exports and Innovation' developed a theoretical model to explain both firms' decisions to become exporters as well as technology diffusion across countries.

Lecture 3 on 'Export Behaviour of French Firms' revisited the portraits developed in the first lecture. A theoretical model was developed to be consistent with these stylised facts.

The Series was regarded as a huge success and attracted a large audience, not only of Nottingham based participants but colleagues from other universities, and provided our postgraduate community and staff with a comprehensive review of work underway in a frontier area.

David Greenaway, Chris Milner, Frederic Tournemaine, Jonathan Eaton, Alexander Hijzen

Offshoring, political myths and economic reality

The offshoring of employment abroad has in recent months become an issue of great interest both to economics commentators and politicians, especially those in the US. In this summary of his Leverhulme Globalisation Lecture in October **David Smith** *considers the extent of offshoring as well as its benefits to firms, to the domestic economy and also to less developed countries. David is the Economics Editor at The Sunday Times.*

Last year, Gregory Mankiw, chairman of President Bush's Council of Economic Advisers, caused a political storm when he released his Economic Report of the President. According to CBS News he was guilty of "political ineptitude". Tom Daschle, the Democrat Senate Minority Leader, accused him of spouting "Alice in Wonderland" econom-

ics. What did he say? Simply that "offshore outsourcing" was just another facet of increased trade in services and that: "When a good or service is produced more cheaply abroad, it makes more sense to import it than to make or provide it domestically."

Most economists would not disagree with that. So why so controversial?

Offshoring is a hot issue. People who barely blinked when manufacturing jobs were shifted abroad have become alarmed by the loss of service-sector posts.

The most common response is that, if these jobs are going, what will be left? The rejoinder should be easy – just because some jobs are going does not mean they all are – there is a process of job destruction and creation. But the new jobs, as Alan Greenspan pointed out recently, may be in areas we can scarcely imagine.

There is also a corporate sensitivity about offshoring. The National Westminster Bank boasts in its television advertisements that it has "UK-only call-centres". The government, however, has taken a positive line. Patricia Hewitt, the trade and industry secretary, said recently: "Companies can now locate themselves where they like. We can't resist this and we shouldn't want to. Globalisation means greater growth, a better quality of life and more opportunities for all countries, poor and rich alike, to share in rising prosperity."

This conveys two messages. The first is that if Britain tried to cut itself off from the global economy by limiting offshoring the economy would suffer. The second is that there is also a positive development message. Offshoring helps economies poorer than ours.

Let us have a look in more detail at the economic benefits.

- The first comes in lower costs and lower inflation. An Indian call-centre worker gets paid a tenth of his UK counterpart. Even adjusting for purchasing power parity, Indian IT professionals are paid about a third of their UK counterparts and a quarter of the going rate in America. Few companies would shift operations overseas if they were not saving at least 20% to 30%.
- The second gain is in real incomes. A popular view is that all the income gains go to the host country. In fact, perhaps 70% to 80% go to the offshoring country. The real income gains, at least in the first-round, come directly from lower prices and indirectly, through the boost to corporate profits and therefore dividends.
- Third, many countries suffer from specific shortages of particular labour. In the UK there are 700,000 job vacancies, half a million of them in the private sector.
- Fourth, the shift of jobs overseas enables workers to be moved into higher value-added/higher productivity jobs.

David Smith during his *Leverhulme Globalisation Lecture*

What about the potential disadvantages? It is easy to assume perfect labour mobility and the seamless transfer of displaced workers here into new jobs. Life is not like that. The ex-steelworker in Rotherham who has re-trained to become a call-centre operator may not have another career change left in him.

Why do companies move activities offshore? A survey carried out by Nirupam Bajpai of the Earth Institute at Columbia University shows that the overwhelming motivation, mentioned by 70% of firms surveyed, is to cut costs. Other factors, such as increasing capacity, taking advantage of offshore labour, gaining access to better technology and systems and improving service levels come well down the list.

What kind of activities are offshored? IT development is easily the most popular activity, mentioned by more than 60% of firms, followed by customer service – this includes call-centres - and a range of back-office functions, including payroll management, IT support, processing and paying-out expenses and managing transactions. A prime driver of offshoring is the fall in telecommunications costs and the increase in broadband capacity to places like India.

What empirical work has been done on offshoring? Evalueserve looked at likely labour supply and demand between now and 2010. Its conclusion was that there will be a labour gap that will only be made up by working-age immigrants and decisions by UK companies to offshore. So offshoring a cumulative 270,000 jobs is necessary to

head off labour shortages.

Most of the detailed work has been done from America, McKinsey estimated that a cumulative 3.3m US jobs would be offshored over the next decade or so, large in itself but small in relation to normal job market inflows and outflows.

To what extent will offshoring boost GDP in the country sending jobs overseas, and to what extent will inflation be kept down by outsourcing? Global Insight, a US economic consultancy, estimated a GDP boost from higher real incomes and the shift of workers into more productive activities of $124 billion by 2008. That sounds like a lot, but it is only around 1% of GDP.

What about inflation and interest rates? Global Insight concluded that the cost-reduction effect would be worth a cumulative 2%-2.5% off the level of the GDP deflator by 2008, and interest rates will be 0.4% lower than otherwise.

This allows the crucial third step in the economic argument. How many more jobs will be created by stronger economic growth and lower inflation? These estimates suggest a quarter of a million US IT service jobs will have been lost by 2008, but 600,000 additional non-IT jobs created. The net effect is more employment.

That is impressive, but underlines the problem that economists have in this area. The 600,000 people who have jobs as a result of offshoring-related economic growth will think their good fortune is due to happenstance, and their own efforts, and nothing to do with the decisions by companies elsewhere in the economy to outsource service jobs. But the quarter of a million IT service sector workers will complain loudly about their plight. The economic benefits of offshoring outweigh the costs. Unfortunately they are less visible.

GEP ANNUAL CONFERENCE

‘Globalisation and Firm Level Adjustment’

24th and 25th June 2005

Speakers include:

John Baldwin, *Statistics Canada*

Peter Egger, *University of Munich*

Patrik Gustavsson, *Stockholm School of Economics*

Jonathan Haskel, *Queen Mary, University of London*

Thierry Mayer, *University of Paris*

Marc Melitz, *Harvard University*

Peter Neary, *University College Dublin*

Steve Redding, *London School of Economics*

Deborah Swenson, *University of California, Davis*

Ian Wooton, *University of Strathclyde*

Stephen Yeaple, *University of Pennsylvania*

For further details see the GEP Website or contact sue.berry@nottingham.ac.uk

Modelling Foreign Firms' Productivity Advantages

An established fact from the empirical literature on multinational firms is that they consistently have higher productivity levels than firms that serve just domestic markets. This has led to the development of theoretical models in which the decision of firms regarding the location of production (whether to become multinational) is a consequence of the firms productivity level, only the best become multinational. There is no feedback from this to productivity. More recent theoretical models, such as have begun to question this modelling structure. This summary by **Ben Ferrett** *is an example. Ben is an Internal Fellow of GEP.*

In recent research, I have tried to provide a theoretical analysis of the sources of foreign-owned firms' widely-documented "productivity advantages" over domestic firms. I focussed on two specific features of this strand of empirical literature. First, it appears that this "productivity advantage" is not entirely due to a concentration of foreign-owned firms in sectors with particularly high physical and human capital intensities (i.e. ratios of physical capital to labour and of skilled to unskilled workers). Second, it appears that the "productivity advantage" of foreign-owned firms is not a peculiar characteristic of the UK economy (i.e. that "nationality effects" are not central to explaining foreign-owned firms' "productivity advantages").

I modelled the relationships between foreign direct investment (FDI) inflows and outflows and national "productivity distributions" across firms (plants) in an international oligopoly. Industrial structure is determined endogenously (as a subgame perfect Nash equilibrium of a four-stage game) in the manner of Horstmann and Markusen and Rowthorn, and both greenfield- and acquisition-FDI flows are allowed for. Two characteristics of the national "productivity distributions" (across plants) in the industry considered are endogenously determined in my model. First, plants can be either high- or low-productivity (there are two technologies), depending on which types of "technology transfer" occur; and, second, the number of plants is endogenously determined at equilibrium (a single potential-entrant firm exists).

There are three ways in which firms' FDI decisions interact with a national "productivity distribution" in the industry modelled. First, undertaking (either form of) FDI can lead to *inter-firm technology transfer* between the MNE's newly-established branch plant abroad and rival firms located in the host country. Inter-firm technology transfer is identical to what are sometimes labelled "spillovers". In our model spillovers can flow in both directions between a foreign branch plant and local rivals. Second, following a flow of acquisition-FDI, *intra-firm technology transfer* occurs: the high-productivity purchaser is able costlessly to install its (superior) technology in the acquired plant abroad. The concept of intra-firm technology transfer is identical to that employed by Long and Vousden in their model of crossborder mergers, who assume that every plant in a merged firm operates at the minimum marginal cost of its constituent plants before the merger. Third, FDI decisions interact with national "productivity distributions" through the relationship between the greenfield-FDI/ acquisition-FDI choice (i.e. which form of FDI to choose) and the potential entrant's decision.

Three principal conclusions emerged. First, acquisition-FDI arises in equilibrium for two distinct sets of parameter values, medium-sized and very large sunk costs of greenfield-FDI; between them (i.e. large greenfield-FDI sunk costs) and for small greenfield-FDI sunk costs, firms optimally choose between exporting and greenfield-FDI in order to serve foreign product markets. The consequent "re-switching" between greenfield- and acquisition-FDI that occurs as the sunk cost of greenfield-FDI rises is a typical feature of our model. Second, rises in the trade cost make the occurrence of greenfield-FDI (rather than exporting) in equilibrium "more likely" in regions where acquisition-FDI does not occur. This is analogous to the "tariff-jumping" greenfield-FDI observed in other models. Third, rises in the technological lead of an incumbent firm make that firm "less likely" to undertake greenfield-FDI in equilibrium but they make foreign technological laggards "more likely" to undertake ("technology-sourcing") greenfield-FDI in the leader's home country. The third conclusion contradicts the prediction of the popular OLI (ownership-location-internalisation) paradigm that the possession of "ownership advantages" (highly productive, firm-specific assets) is necessary for (greenfield-) FDI.

Leverhulme Globalisation Lectures 2005

Martin Wolf

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

'Why globalisation works'

17th February 2005

Evan Davis

Economics Editor, *BBC*

'What do *we* do, when China makes everything?'

18th April 2005

Both at 5pm in lecture theatre A48, Sir Clive Granger Building, University of Nottingham

GEP Conference on Outsourcing

By Alex Hijzen

The Leverhulme Centre for Research on Globalisation and Economic policy (GEP) organised a one day conference on cross-border Mergers and Acquisitions (M&A) on October 4 organised by Alexander Hijzen and Holger Görg (pictured below). Cross-border mergers and acquisitions have increased dramatically over the last two decades. In 1999, the value of completed cross-border M&As was around $720 billion. The value of all M&As, both cross-border and domestic, amounted to an equivalent of 8 percent of world GDP in the same year (UN 2001). Given this rapid increase, fully understanding the determinants and implications of mergers and acquisitions has been high on the agenda for both policy makers as well as academics.

One of the objectives of the conference was to bring together different perspectives on the issue. Consequently, the external speaker line-up included amongst others a macro-economist (Peter Rousseau, Vanderbilt University), an applied business/industrial economist (Burcin Yurtoglu, Vienna University), a theorist of industrial organisation (Lars Persson, IUI Stockholm) and a policy-oriented trade economist (Simon Evenett, Oxford University). Internal speakers included Ben Ferrett and Alex Hijzen. Giving a concise overview of the papers in a few lines is therefore not an easy task, let alone providing a fair representation of the discussion that followed the respective paper presentations. The remainder will therefore only selectively review the presentations and discussions that took place during the workshop.

Cross-border mergers and acquisitions constitute a considerable part of foreign direct investment (FDI). While often cross-border M&A is considered to be a subset of FDI ranging from about 50% to 90% depending on the source that is consulted, it was pointed out by Keith Head (University of British Colombia) - visiting GEP during October - that in fact this is not quite true. FDI, in contrast to cross-border M&A, solely refers to transactions between parents and affiliates. Cross-border M&A includes also portfolio investment which are financed via domestic and international capital markets. It is not possible to trace the country from which the funds originate. Moreover, FDI refers to net investments whereas M&A refer to gross transactions (acquisitions and divestments). Due to those differences, it is therefore quite possible that cross-border M&A exceeds the documented value of FDI. It was also noted that despite the fact that the two labels refer to very similar concepts, the literatures appear to be surprisingly different. The literature on FDI usually implicitly or explicitly appears to consider FDI as 'greenfield investment', i.e. establishing new production facilities, while the literature on cross-border M&A is much more diverse.

Recent research by Ben Ferrett, a research fellow of GEP, argues that theoretically greenfield FDI and international investment through M&A ('acquisition FDI') are quite distinct. His argument is largely based on the fact that greenfield FDI increases the number of plants in a market whereas acquisition FDI reduces the number of players. Not surprisingly, the way firms decide to enter a foreign market may have important implications for consumer welfare. To the extent that cross-border M&A increases market concentration, and therefore increases the market power of incumbent firms, they can exploit this by increasing the market price at the expense of consumer welfare.

Another interesting feature of Ferrett's research is that he studies the choice of the mode of international investment in conjunction with the choice of firms to engage in research and development activities (R&D). This is interesting because R&D investments may be higher in the presence of acquisition M&A mainly because in more concentrated markets firms can more easily bear the fixed cost of R&D investment. Consequently, the impact of acquisition investment on consumer welfare is no longer necessarily negative.

His findings suggest that in small markets where barriers to entry are relatively high, cross-border M&A dominates greenfield FDI. Conversely, in large markets where barriers to entry are negligible greenfield FDI is likely to be the main mode of entry. In general, Ferrett finds that in the presence of acquisition FDI profits are generally

higher but consumer welfare is generally lower (compared to greenfield FDI). However, in small markets technological progress due to acquisition FDI may offset the negative impact of market concentration on consumer welfare. In this case, acquisition FDI is beneficial to both firms and consumers.

Thus, apart from study the implications of FDI on production capacity and foreign entry, fully understanding the determinants and implications of cross-border M&A, which represent changes in the ownership structure, requires one to address a whole array of issues not traditionally part of the trade literature on FDI such as the ones raised in Ferrett's research including strategic rivalry, competition policy and the issue of technology transfer, but also issues related to taxation policy, transfer pricing, finance, corporate governance and managerial discretion.

Research by Burcin Yurtoglu emphasises the role of corporate governance in explaining M&A. Moreover in particular, he is interested in two stylised facts that in relation to M&A activity: i) that mergers occur in waves; ii) merger activity is closely related to movements in stock market valuations. It is unclear, however, what drives the relationship between stock prices and merger waves. Peter Rousseau for example presented new research where highly valued firms takeover low valued firms in times of radical restructuring based on the Tobin's Q model of investment. Alternative explanations centre around the industrial concentration hypothesis, stock market bubbles and corporate governance.

Yurtoglu designs four tests to evaluate the empirical validity of the four paradigms in the literature. His findings suggest that corporate governance, and more specifically the extent of managerial discretion, is the most plausible explanation of merger waves. The basic argument is that in times of stock market booms managers enjoy an excessive amount of discretion which they then employ in order to conduct prestige enhancing acquisitions. Apart from a direct test based on regression analysis, they also show that M&A in stock market booms are wealth destroying, thereby rejecting the validity of explanations based on the profit maximising behaviour of firms. This is clearly an interesting finding and challenges the standard neoclassical assumptions which underlie the majority of current economic research. At the very least it suggests that economic researchers should keep an open eye to the incentive structure within firms.

All in all, it has become clear that one can study cross-border M&A from many different perspectives. Fully understanding its determinants and implications requires one to take into account those different perspectives. Bringing together researchers of cross-border M&A with widely different backgrounds made this very clear. While the workshop may have helped to answer some questions, as usual it probably gave rise to many more which may motivate more fruitful research on cross-border M&A in the future.

Foreign direct investment: taxes, transfer pricing and inefficient ownership

The increased internationalisation of production has led to concerns about the knock-on effect on government finances, especially amongst high tax countries. Multinational companies are accused of using inflating costs in low tax countries versus high tax countries in order move profits to low tax countries and therefore minimise their tax burden. In this summary of his presentation at the GEP Conference on Outsourcing **Lars Persson** *develops a theoretical model to consider more deeply these effects. Lars is the Deputy Director of the Research Institute of Industrial Economics, Stockholm, Sweden.*

In the continuing process of globalisation, an increasing number of markets become open to foreign direct investments (FDI) by multinational enterprises (MNEs). However, among high tax countries, there has been a growing concern about the impact of MNE activity on government corporate tax revenues. The reason is that MNEs can reduce their overall tax burden by shifting profits toward low-tax countries, for example by using transfer pricing techniques.

Another concern among high tax countries is that differences in tax rates might induce inefficient foreign takeovers of domestic firms, which could then lead to less efficient production in the host country, thereby reducing economic welfare.

In our study, these issues are addressed theoretically in a double taxation setting, mimicking how actual tax systems work in many industrialised countries. Equity-

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financed corporate investments are assumed to be taxed twice. First, a tax is levied on net profits at the corporate level, and second, dividends and realised capital gains on shares are subject to a personal income tax at the shareholder level.

We demonstrate that the effects on domestic tax revenues of entry by tax evading MNEs crucially depend on how the entry into the domestic market takes place. When the MNEs enter by acquiring scarce domestic assets, this can actually increase domestic tax revenues, even though MNEs fully evade all taxes.

To understand this result, consider the following scenario: a domestic-owned firm holds some kind of unique assets, such as market knowledge, a good reputation, a strong brand name, or a distribution network. Several symmetric MNEs are located outside that market and can only enter by acquiring the domestic firm. If the MNEs find the market potential sufficiently interesting, they attempt to acquire the domestic firm by bidding for it. After the bidding is done, the firms located in the market generate product market profits. If the firm is not sold, the domestic owner pays the corporate profit tax. If the firm is sold, the domestic owner pays capital gains taxes on the acquisition price. The foreign owner is assumed to transfer all profits to a low-tax country.

More generally, a fundamental aspect of the theoretical model developed in the paper, is that the sales price of the domestic firm is shown to be equal to a non-acquiring MNE’s valuation of its assets. This equals the profits minus the taxes paid in the low-tax country. Due to the bidding competition between MNEs, this implies that all benefits from the acquisition – including the value of tax evasion – are competed away and captured by the domestic seller.

The domestic seller, however, cannot evade capital gains taxation. The seller ends up paying more taxes since the capital gain from selling is higher than the profit from keeping the assets – otherwise no acquisition would take place.

The model is then extended to allow MNEs to enter the domestic market by investing in non-scarce assets (greenfield entry). It turns out that the effect on tax revenues by foreign entry crucially depends on the entry mode of the foreign firm. When entering greenfield, the foreign firm will pay a fixed entry cost only covering the opportunity cost in terms of factor inputs (for example labour and financial capital). Thereby, the MNE creates no additional domestic capital gains.

This implies that foreign greenfield entry will reduce tax revenues, since it reduces domestic firms' taxable profits and does not create any domestic taxable capital gains. Whatever profits the foreign firm is making are transferred to the low tax country. If foreign firms both enter greenfield and by acquiring domestic firms, it is shown that the total tax revenues can increase, but only if the domestic scarce assets acquired by the MNE are sufficiently important for generating profits in the product market.

Next, we turn to the concern that differences in tax rates might induce inefficient foreign takeovers of domestic firms. We can indeed show that a double taxation tax system may induce inefficient ownership since profit taxes can be evaded by the domestic owner through the acquisition. An acquisition is therefore a way for the domestic owner of avoiding double taxation, and only paying the capital gain tax. Since the foreign entrant pays lower profit taxes than the selling domestic firm, an inefficient foreign firm can afford to acquire domestic assets from a more efficient domestic owner.

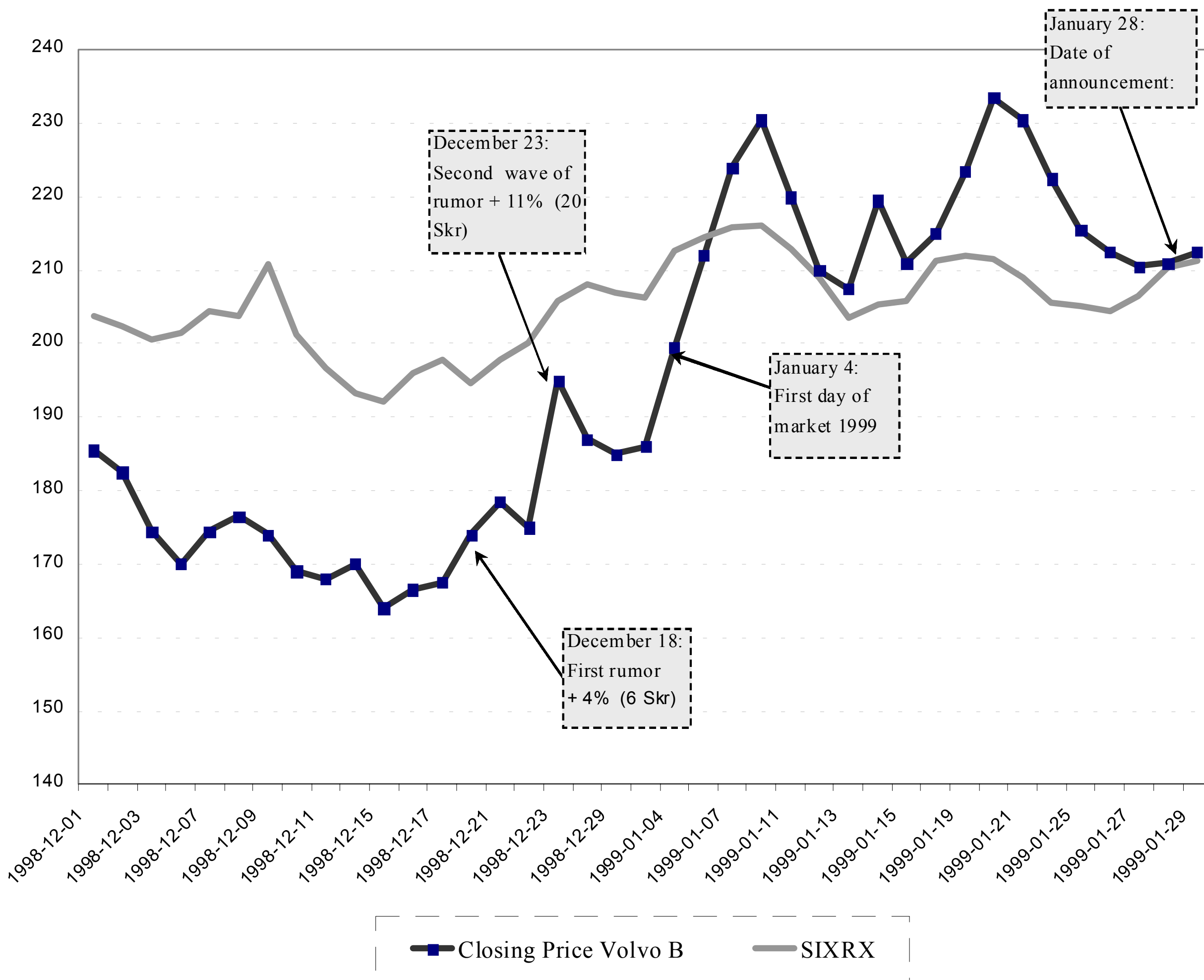
Moreover, it follows that the increased domestic profit tax will increase the incentives for cross-border M&As, since the domestic owner’s reservation price will then decrease. Thus, an empirical implication of our model is that changes making the profit taxes more dispersed will increase the frequency of cross-border M&As.

That the tax revenues generated by foreign acquisitions might be substantial is illustrated by the acquisition of the Swedish car producer Volvo by Ford in 1999. The stock price reactions to the acquisition process are shown in Figure 1. From the time that the first serious rumour emerged to the date when the acquisition was announced, Volvo's stock market value increased by 21% more than the general index

(SIXRX). Given that 56% of the stocks in Volvo were owned by Swedes, future Swedish revenues from capital gains taxation were increased by 210 million Euros. In December 2002, Volvo Cars, now an affiliate of Ford, was ruled to pay an additional tax of 196 million Euros, since the claimed deduction of royalties to the mother company Ford was denied by the local tax office. Even if these figures are mainly indicative, they suggest that the gains from "transfer pricing" were expected from the deal and therefore – to some extent – incorporated in the acquisition price.

Together with the theoretical results, the Volvo-Ford example demonstrates that capital gains taxation can be important in mitigating the revenue losses caused by tax evading MNEs. A policy-implication is therefore that the monitoring of capital gains to some extent acts as a substitute for the monitoring of profit shifting activities. However, as always before drawing policy conclusions, that are too strong some empirical estimates of the sizes of the various effects are needed.

Figure 1: Volvo Share Price and Swedish All Share Index



'Soft Law' and International Economic Regulation

The Case of Mergers and Acquisitions

With the ongoing implementation of the Uruguay Round's multilateral trade agreements, and the associated creation of the World Trade Organisation (WTO) in 1995, it has been common to think—especially in circles of international trade economists—in terms of binding rules as governing international commerce. In this article **Simon** Evenett *discusses how this provides an incomplete understanding of international economic regulation and focuses instead on soft rules in the context of internal mergers and acquisitions. Simon is a Professor at the University of Oxford, a Research Fellow at CEPR and Brookings Institutions and an External Fellow of GEP.*

The focus on what some call "hard rules" fits naturally with such economists' long standing interest in the national incentives to comply with international rules in the face of pressures from domestic interests. Without implying any criticism of this worthy research programme, it is important to recognise that in recent years significant international commercial transactions are being subject to non-binding or so-called soft international rules. Moreover, in certain policy domains, national governments have explicitly rejected the negotiation of hard rules in favour of softer alternatives, often leading to the agreement of non-binding recommendations on regulatory standards and enforcement practices. A focus on hard rules, then, provides an incomplete understanding of the nature and extent of current international economic regulation.

With the ongoing implementation of the Uruguay Round's multilateral trade agreements, and the associated creation of the World Trade Organization (WTO) in 1995, it has been common to think—especially in circles of international trade economists—in terms of binding rules as governing international commerce. This focus on what some call "hard rules" fits naturally with such economists' long standing interest in the national incentives to comply with international rules in the face of pressures from domestic interests. Without implying any criticism of this worthy research programme, it is important to recognise that in recent years significant international commercial transactions are being subject to non-binding or so-called soft international rules. Moreover, in certain policy domains, national governments have explicitly rejected the negotiation of hard rules in favour of softer alternatives, often leading to the agreement of non-binding recommendations on regulatory standards and enforcement practices. A focus on hard rules, then, provides an incomplete understanding of the nature and extent of current international economic regulation.

Competition law and its enforcement is an interesting example of a state measure which has been increasingly subject to both hard and soft international rules. Many regional and preferential trading agreements include binding commitments on competition laws. The recent U.S.-Singapore free trade agreement is a case in point and contained an obligation on Singapore to enact and enforce a competition law. And, of course, the European Union's body of competition law is of longer standing. Yet, interestingly, proposals to negotiate multilateral disciplines on hard core cartels, on core principles for competition law and enforcement (including commitments to enhance transparency and to avoid discrimination on the basis of nationality), on voluntary cooperation, and on technical assistance foundered at the Cancun meeting of WTO members in September 2003. The so-called July (2004) package, which it is claimed has got the Doha Development Round back on track, confirmed that hard rules on competition law and enforcement would not be negotiated in the WTO for the foreseeable future. This outcome reflected the determined opposition of many developing countries (in particular Sub-Saharan African and Caribbean nations), the private sector competition bar and many of the latter's official counterparts in certain leading competition enforcement agencies.

Parallel to the discussions in the WTO (which began in earnest after the Singapore meeting of WTO members) and, in the view of some, stimulated by the desire to create a non-WTO arena to further international dialogue on competition law, soft law alternatives for competition law were advocated with greater frequency in the late 1990s. The latter eventually manifested itself in the creation of the International Competition Network (ICN) in 2001. The stated goals of the ICN are to encourage cooperation on competition law and enforcement matters and to promote greater procedural convergence among enforcement agencies on the basis of "sound" principles. This network has no formal headquarters and is said to be "virtual" in nature. At present, 85 competition enforcement agencies are members and they are advised by a bevy of private sector competition lawyers and academics. The two U.S. antitrust agencies and the European Commission's Directorate General for Competition are the driving force behind the ICN, even though no official from these three bodies has ever been the formal head of this network.

Since its inception the ICN has undertaken a substantial

programme of activities, in particular in the area of the review of proposed mergers and acquisitions. Eight Guiding Principles and 11 Recommended Practices have been agreed by the ICN's membership. Even though these "rules" are non-binding, the ICN's members and the private sector bar (in the latter case through the so-called Merger Streamlining Group) has attempted to gauge compliance with these soft rules. It should be said that for many competition agencies the notion of compliance is a very sensitive one, in part because agencies tend not to like to be seen to have fallen behind their peers. To be fair to the agencies some of the agreed Principles and Recommendations are drafted in such a way that assessing compliance in a clear-cut manner is not always possible. Even so, many officials contended at last year's Annual Conference of the ICN that more countries were in compliance with, or were converging to, the ICN's previously agreed non-binding norms.

Now why should a hard-nosed international economist be interested in any of this soft rule-making by competition enforcement officials and the private sector bar? The first important reason is that the subject of such rule-making, namely national merger reviews, influences not only national but also cross-border mergers and acquisitions (M&A). The latter, as is increasingly being recognised, is by far the largest component of foreign direct investment flows in the industrialised world. Such rule-making could, therefore, influence the pace of economic restructuring in an era of more open borders and greater domestic competition. The nature of any rules adopted and the uncertainty created by them (which is said to be greatest "deal breaker" of all in M&A transactions) is, therefore, of interest.

A second reason is that, even though soft rules are not backed up a sanctioning mechanism such as the WTO's Dispute Settlement Understanding, given the considerable time and trouble policymakers spend on soft law initiatives, interesting questions remain concerning the choice of rules, the motivation for them, and the incentive to comply with them. For example, what non-trivial factors determine the choice of soft rules over harder alternatives? What is the purpose of soft rules—to raise minimum standards, to foster convergence, or harmonisation? Do soft rules enhance the predictability of regulatory enforcement and so alter the expectation formation by the private sector? In the absence of sanctions, what incentives do competition agencies face to adopt and stick to soft rules? In this regard, are the benefits of inter-agency cooperation so large that a credible threat of non-cooperation is enough to induce broad compliance with the ICN's merger-related recommendations? Given that most inter-agency cooperation on merger reviews is between industrialised countries, what other incentives foster compliance with the ICN's recommendations by competition agencies in developing countries? With respect to the latter, is the promise of future technical assistance the mechanism to induce compliance by enforcement agencies in development countries? In which case one might well ask whether effective soft rules on competition law require a variety of carrots and sticks? These matters have all yet to be explored systematically.

In ongoing research, presented at a GEP-sponsored conference in October 2004, using a survey of the merger-related enforcement policies and practices of the ICN membership that was organised by a group of private competition lawyers, I attempted to estimate the factors that determine the degree of compliance with the ICN's Recommended Practices. The considerations discussed in the paragraph above, plus some hypotheses advanced in the international relations literature, were confronted with data on 56 ICN members' merger enforcement regimes. Although there are many caveats to be borne in mind when using qualitative survey responses provided by potentially interested parties, and given the fact that there was only one years worth of data, a number of interesting preliminary findings were established. The data rejected the hypothesis that small economies have different rates of compliance than large ones; a finding that is of interest given the arguments made by some experts in developing countries that merger review should be implemented differently in small economies where firms cannot take advantage of economies of scale. Rates of compliance were found to be independent of national legal tradition, with association with or membership of the European Union, and with membership of the ICN working group that drafted the merger Recommendations.

Richer countries tended to comply more often, as do the initial members of the ICN (who may have a greater stake in seeing this body flourish.) Recipients of technical assistance from the European Union tended to comply more whereas, somewhat surprisingly, recipients of U.S. technical assistance complied less. (In this respect it is worth noting that overall U.S. compliance with the ICN's recommendations is reported to be less than in the European Commission's. In the light of this information, and the findings on the effects of technical assistance reported above, it may be tempting to further hypothesise that European and American technical assistance programmes in the area of competition law and enforcement are pulling developing countries towards different models of merger enforcement.) Finally, and not surprisingly, perceived compliance is far less when assessed (for the purpose of the survey on which this econometric analysis is based) by a private practitioner than a serving government official.

No doubt these hypotheses could be sharpened and the econometric approach strengthened. Moreover, should comparable surveys be repeated in the future, estimates of the degree, speed and determinants of convergence will be possible. Along with data on non-ICN members, it should be possible to better identify the independent contribution

of soft law to the evolution of merger review regimes. Furthermore, as more competition agencies report the number of M&A cases on which they have cooperated with a peer agency, then it should be possible to evaluate the hypothesis that ICN membership has fostered procedural cooperation.

To conclude, I have argued here that the regulation of international commerce using non-binding or soft commitments is a growing phenomenon. Using the example of merger reviews, I have described a number of economically important hypotheses that researchers may wish to examine. Moreover, as data on national participation in, and compliance with, soft law initiatives is collected, we may be able to quantify the independent contribution of non-binding international economic initiatives. More generally, this promising line of research may well shed light on the types of international economic regulation where the threat of trade sanctions is not necessary to induce compliance with international norms. Such research could have wide ranging policy implications, not least for assessing which measures should be included within the realm of the WTO.

GEP/MURPHY INSTITUTE CONFERENCE

'Political Economy of Fairness and Globalisation'

1st and 2nd April 2005

at the University of Tulane, New Orleans

Jointly sponsored by GEP and the Murphy Institute, University of Tulane

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Amrita Narlikar, ***University of Cambridge***

Gerry Rodgers, ***International Labour Organisation***

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Visitors to GEP 2004/5

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Dr Hartmut Egger *University of Zurich* Professor Peter Egger *University of Innsbruck*	Professor Keith Head *University of British Columbia*	Professor Jonathan Eaton *New York University*
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The World Economy Annual Lecture

'Bazaar Economy'

Professor Hans-Werner Sinn

President of Ifo Institute of Economic Research, Director of Centre for Economic Studies, University of Munich

Thursday 24th October 2005

At the University of Nottingham

Welcome to…… John Brown

John is an Associate Professor at Clark University and joins GEP as an External Research Fellow. John received a B.A. from the University of Wisconsin in 1978 and an M.A. and a Ph.D. from the University of Michigan in 1984 and 1987, respectively. He is a research economist with the Program in Cohort Studies of the National Bureau of Economic Research. He is also affiliated with the Clark program in Urban Development and Social Change. Professor Brown is an economic historian with research interests in historical demography (fertility and mortality), the economic history of urbanization, international trade and German industrialisation (the history of the cotton textile industry and the labour force).

The external dimension on the Euro area

In setting interest rate policy within the European Monetary Union the European Central Bank requires an understanding of the linkages between the European countries with the rest of the world. In his Leverhulme Globalisation Lecture in November **Bob Anderton** *discussed how shocks from outside EMU might propagate through the member countries and the extent of the co-movement between member and external countries. Three main forms of linkage with the rest of the world were identified as trade, financial and confidence linkages. Bob is Senior Economist at the European Central Bank, a Special Professor in the School of Economics and a Policy Associate of GEP.*

International trade is the traditional channel by which economies may affect each other and represents one of the main aspects of the euro area's external dimension. A first step in analysing the impact of the external dimension on the euro area is to measure the trade openness of the euro area (usually defined as trade flows divided by nominal GDP). On this basis, and excluding the trade between the euro area countries, the euro area is a large and relatively closed economy when compared to the individual euro area country members and, in this respect, has different characteristics, and is a somewhat different entity, in comparison to the separate euro area countries. By contrast, the euro area is still significantly more open than either the USA or Japan and is, therefore, relatively more exposed to shocks originating from external developments. For example, exports of goods and services represent around 20% of euro area GDP, compared with around 9% for the United States and almost 11% for Japan. However, even from a simple trade perspective, international linkages are not straightforward and the impact on the euro area of external trade-related shocks can differ quite considerably depending on the specific nature of the shock.

Regarding euro area capital flows, one important point is that the size of the gross flows for both direct and portfolio investment and, consequently, the stocks of foreign assets and liabilities of the euro area, have grown strongly in recent years. For example, average annual gross outflows in combined direct and portfolio investment during 1998-2001 for the euro area were equivalent to 10% of euro area GDP. This implies that the potential magnitude of the impact of capital flows as a channel for the transmission of external shocks to the euro area may have changed over time. FDI seems to be a relatively significant channel for the transmission of external shocks. In particular, this channel is linked to the globalisation and internationalisation of production and, consequently, the profits of multinational corporations are becoming ever more dependent on the external environment. For example, the large increase in outward FDI by euro area companies to the US means that the profits of euro area multinationals may now be more exposed to fluctuations in US activity and profitability, while the increased presence of US multinationals in the euro area also strengthens the economic links between the two economies.

Meanwhile, the changing value of the stock of euro area firm's foreign direct investments in the USA highlights another channel for the international transmission of shocks. For example, the past losses in the value of euro area corporation's Mergers and Acquisitions (M&A) investments in the US due to the fall in equity prices, particularly in the 'new economy' sectors, may have had a negative impact on capital expenditure in the euro area through the implied decline in corporate wealth of the acquirer/parent company.

Other international linkages, and additional channels, may also be behind the apparent increase in the international synchronisation of economic activity during the latter part of the 1990s and the early 2000s. As regards financial linkages, the transmission of shocks across different national equity markets may explain some of the comovements in activity between the US and the euro area. For example, some estimates show that the correlation between US and European share prices has doubled in recent years. Meanwhile, common shocks, such as oil price shocks, or the recent ICT shock in the second half of the 1990s, can have considerable impacts, perhaps partly due to the growing internationalisation of production which can lead to a wider dispersion of the original shock and possibly reinforce it.

As regards the co-movement of output across countries, some measures of synchronisation of international activity reveal that the degree of synchronisation has shown a trend decline over the past three decades between the G7 coun-

David Greenaway and Bob Anderton

tries, although there has also been an increase in synchronisation since the mid-1990s onwards. This result still appears quite puzzling. As described earlier, the euro area may be increasingly interconnected with other major economies through trade, financial and confidence linkages. In addition, increases in trade over the past decade do not appear to have been associated with increases in sectoral specialisation, which may lead to de-sychronisation. By contrast, large countries appear to have become more similar in sectoral composition, while trade is increasingly characterised by vertical specialisation, that is, by countries specialising in particular stages of a good's production sequence, rather than in producing the entire good. This type of trade is generally related to the internationalisation of production chains and should in principle increase the correlation of output across countries.

In order to shed light on this issue, ECB Occasional Paper No. 12 examined the synchronisation of the euro area GDP growth with a common factor obtained using GDP figures for the US, Canada, UK and the euro area as a whole. The results show that the declining trend in the degree of synchronisation is still present, although there is an evident increase in synchronisation which is pronounced and prolonged in the years leading up to, and including, the most recent downturn in 2000. In addition, the lowest degree of synchronisation of euro area GDP growth vis-à-vis the US, Canada and the UK is registered in the first half of the 1990s when a large idiosyncratic shock, related to German reunification, affected the euro area. This idiosyncratic shock may also be a major factor in causing the overall trend decline in synchronisation over the whole sample period, implying that without this particular shock the degree of synchronisation between the euro area and North American GDP might have increased over time. In addition, the results seem to imply that the co-movements in output between the euro area as a whole and the other major economies of the world may be somewhat different to those between the individual euro area countries and the other major economies. For example, the degree of synchronisation between the GDP of Germany, France and Italy and the other G7 economies may be negatively affected by the growing intra-euro area trade of the three euro major area countries. By contrast, measures of the co-movements of the GDP of the euro area as a whole and the other G7 economies are not affected by the increasing importance of internal trade within the euro area (as intra-euro area trade does not contribute to euro area GDP). This seems to imply that the behaviour of the euro area as a whole might be somewhat different to that of the individual euro area countries.

In summary, it seems that for the euro area as a whole the evidence of various spillovers coming from economic shocks in major economies, combined with the presence of common shocks, might explain the increase in the degree of synchronisation leading up to, and including, the slowdown in growth which began in 2000 in the US. Moreover, this increase in the degree of synchronisation as well as the seemingly rising influence of less traditional international linkages may partly explain the apparently significant impact of the US slowdown on the euro area in the early 2000s.

4th Annual Postgraduate Conference

11th April 2005, University of Nottingham

The GEP Postgraduate Conference is intended to provide a forum for the dissemination of student research relating to issues of Globalisation and Economic Policy from both theoretical and empirical perspectives. The objective of the Conference is to bring together a number of Ph.D. students to discuss their own research ideas with established researchers in a relaxed and open atmosphere. It is an international conference and this year will include participants from the Universities of *Antwerp, Aston, Dresden, Konstanz, Leicester, Manchester, Minho, Nottingham, Oxford,* ***Paris Jourdan Sciences Economiques****, Paris-Sorbonne and Tartu.*

This year presentations will be given in the themes of *Location and Production Choices of MNEs; Trade and Developing Countries; Globalisation and Technology Transfer; Trade and Labour Markets; International Financial Liberalisations*

Details of the previous GEP Postgraduate Conferences and more information on the 2005 Conference can be found on the Leverhulme Centre Website or contact sara.maioli@nottingham.ac.uk

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