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newsletter

Leverhulme Centre for Research on Globalisation and Economic Policy

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What do *we* do when China makes everything?

We were delighted that Evan Davis agreed to give the latest in the Leverhulme Globalisation Lecture series. Evan is the BBC's Economics Editor, Evan Davis. He is well known to the general public for his insightful and clearly argued views on current economic issues. Evan's Globalisation lecture, when he addressed the topic 'What do we do when China makes everything?' was no exception.

Evan Davis

His first response to this question was that China will not make everything. He suggested that the extent of Chinese imports into the UK is exaggerated, and the value of imports from are China far smaller, than popular perception might suggest. This is partly because the cost of the products that China produces has fallen rapidly in recent years, leading to an influx of cheap clothes, consumer durables and toys. The UK consumer is therefore the main beneficiary.

Tongue in cheek, Evan suggested however that cheap toys might be the cause of current anti-social behaviour problems. When Evan was young and asked his parents for toys they could, with some justification, argue that they were too expensive. This taught him the value of money and that you could not have everything that you wanted. However now, when children ask their parents for toys, parents feel it would be not to buy them as they are so cheap. So spoilt children can be blamed on cheap Chinese imports!

Evan did, however, point out a social good to counterbalance this bad. The fall in the price of consumer durables means that it is no longer worthwhile for burglars to break into houses to steal TVs and DVDs, as you can just as easily pop down to the local supermarket to buy a cheap DVD for £30, as down to the local pub to buy a 'second hand' one.

Returning to his main argument, Evan also argued that when China makes what we are making now, we will make other things which require a higher level of skilled labour input. Evan suggested that the majority of research and development would continue to take place in the West and we would sell to China products embodying this R&D. The West would also sell to China the technology and machinery with which to make the products that it exports to the West.

Finally, Evan argued that, even if in the long run China becomes more like us in terms of the products it produces, there is no need to worry unduly. Here he drew an analogy with trade with Western Europe. Although the UK and Germany produce similar products in many respects they still find many mutually advantageous opportunities to trade with each other. The same mutual benefits would be likely in trade with China as it develops economically.

GEP ANNUAL CONFERENCE

'Globalisation and Firm Level Adjustment'

24th and 25th June 2005

Speakers include:

John Baldwin, *Statistics Canada*

Joze Damijan, *University of Ljubljana*

Peter Egger, *University of Munich*

Ben Ferrett, *GEP University of Nottingham*

Holger Görg, *GEP University of Nottingham*

Patrik Gustavsson, *Stockholm School of Economics*

Jonathan Haskel, *Queen Mary, University of London*

Richard Kneller, *GEP University of Nottingham*

Marc Melitz, *Harvard University*

Peter Neary, *University College Dublin*

Mauro Pisu, *GEP University of Nottingham*

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

GEP Undergraduate Lectures

In April Bob Anderton, Principal Economist, European Central Bank, Special Professor in the Nottingham School of Economics, and GEP Policy Associate gave two undergraduate lectures. His lectures covered 'International Trade and the Adjustment Process Under the EMU' and ' Monetary Policy Transmission in the Euro Area'. These lectures were aimed at third year undergraduate students, but were also attended by students from other years, and provided valuable insight into the application of economics to real world problems.

The lectures were jointly sponsored by GEP and the Nottingham School of Economics Experian Centre.

Bob Anderton

GEP/TULANE CONFERENCE

Doug Nelson

On 1st and 2nd April GEP and the Murphy Institute ran a conference on 'Political Economy of Fairness and Globalisation. Doug Nelson (GEP & Tulane) provides the background.

The language of fairness is extensively deployed in the politics of globalisation virtually everywhere in the world. The legal structures providing protection through administered mechanisms are generally referred to as "fair trade laws". The formula "free and fair" is widely used in the public politics of international trade, by both supporters and opponents of trade liberalisation, as characterising the ideal state of international commercial relations. As economists, we are justifiably sceptical of the rhetoric of fairness when applied to arguments for protection. On the one hand, again as economists, we are collectively strong supporters of liberalization and opponents of protection, so we find ourselves opposed to positions that appear to have their strongest support in fairness-based arguments; on the other hand, our most characteristic normative methods–based in straightforward individualistic utilitarian consequentialism–dismisses notions of rights, justice and fairness as at best muddled and, more likely, welfare worsening. Unlike the archetypal two-handed economist, at least in this area, both of our hands are pushing in the same direction: rejection of fairness-based arguments for trade policy.

Without prejudice to either of the predispositions of economists identified in the previous paragraph, and perhaps as a result of those predispositions, it would seem that we need a clearer positive (as opposed to normative) understanding of the role played by notions of fairness in the political economy of globalization. This concern motivated the organization of a conference on the "Fairness and the Political Economy of Globalization", jointly funded by the Leverhulme Centre for Research on Globalization and Economic Policy and the Murphy Institute of Political Economy, and held in New Orleans on 1st and 2nd April 2005. The papers were primarily divided between those on the domestic political economy and those focusing on the international political economy.

One of the motivations for the conference was the development of a sizable body of essentially micro-based studies suggesting the operation of fairness norms in a number of economic contexts. Thus, the conference was opened with an overview of the research related to labour markets: "Fairness, Reciprocity, and Wage Rigidity", by Truman Bewley (Economics, Yale University).

The next set of papers analyzed the effects of fairness in the domestic political economy of globalization. Per Lundborg (FIEF) developed an endogenous growth model with a fair wage constraint to study the problem of underutilization of skilled R&D workers and the consequent relatively low growth. Udo Kreickemeier (GEP Nottingham) and Hartmut Egger (Economics, Zurich) develop a static model of trade, fragmentation and welfare state provision in a model with a fair wage constraint. In the context of this quite original contribution the authors are able to examine several fundamental questions about the relationship between globalization, welfare state provision and unemployment across countries with heterogeneous fairness constraints. In the final paper of the first day, Carl Davidson, Steve Matusz and Doug Nelson presented a paper seeking to develop a simple model of the political economy of adjustment to globalization under a fairness constraint.

The second day of the conference focused on the role of fairness in the international political economy of globalization. Susan Aaronson (Kenan Institute of Private Enterprise) presented a paper, joint with Jamie Zimmerman on the development of Oxfam's analysis of fair trade as part of its political programmes. Amrita Narlikar (International Relations, Cambridge) presented an analysis of the ways in which fairness has been used as an organizing principle by developing countries in the WTO. Both of these papers demonstrated the power of fairness as an organizing principle and a rhetorical device. From these core positive analyses, the conference concluded with a pair of papers seeking to situate normative talk about fairness in globalization in the broader framework of philosophical analyses of fairness. Mathias Risse (Philosophy, Harvard) presented an analysis of three potential foundations for fairness claims related to trade; while Howard Chang (Law, University of Pennsylvania) presented an evaluation of the normative case for immigration restrictions.

GEP Research Review

On 9th and 10th May GEP held its annual Research Retreat, at the Izaak Walton Hotel in Dovedale. All Internal Research Fellows were involved, with the purpose being to review GEP's primary areas of activity and consider potential areas of research for the future. We invited colleagues from other universities, as well as from other University of Nottingham Schools, to join us and benefited both from their comments on existing work as well as observations on potential areas to investigate. We were delighted that so many distinguished researchers working in related areas were able to participate.

GEP Fellows and Visiting Colleagues

David Greenaway began the meetings with a wide-ranging review of progress made in the Centre and in particular on outreach activity, including conferences, the GEP seminar series, publications and liaison with the policy-making community. Andrew Gurney from HM Treasury also gave a presentation in this session and provided insightful and helpful comments from a policy-making community standpoint.

This was followed by helpful presentations from Peter Egger (University of Munich), Ray Riezman (University of Iowa), Jim Tybout (Penn State University) and Daniel Bernhofen (Clark University and Professor elect at Nottingham) relating to specific GEP Research Programmes. Contributions were also made by Chris Milner, Lina Song, Holger Görg and Peter Wright. Steve Matusz (Michigan State University) and Ken Warwick (Department of Trade and Industry) also participated and provided useful comments throughout. The input from our 'external' colleagues was greatly appreciated and was of enormous benefit to GEP in considering research areas for the medium term.

GEP Retreat in session

Forthcoming Leverhulme Globalisation Lectures

John Martin

Director of Employment, Labour and Social Affairs, OECD

28th November 2005

Martin Wolf

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

16th February 2006

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

The Nottingham Lectures in International Economics

Alan Deardorff

University of Michigan

17th - 19th October 2005

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

GEP Postgraduate Conference

By Sara Maioli

Sara Maioli

On April 11th GEP hosted its Fourth Post-Graduate Conference, attracting PhD students from across Europe and the UK. This year the conference was organised with both stand-up presentation sessions and poster sessions. The 14 papers presented were concerned with four main topics: trade and labour markets, trade and developing countries, the effects of globalisation in terms of technological transfer and international financial liberalisation. The Conference was organised by GEP Research Fellow Sara Maioli, who provides this summary.

Paulo Bastos from the University of Nottingham and GEP presented a theoretical paper titled 'Open Shop Unions and International Trade Liberalisation' (co-authored with Peter Wright and Udo Kreickemeier) that extends the international oligopoly model to the situation of bargaining with an open shop union. A so-called 'open shop' arrangement is a situation in which the union is recognised for bargaining purposes but membership is not compulsory. It is opposed to the 'closed shop' union, characterised by 100% level of membership, which guarantees that in the event of a strike the firm is unable to continue production. But the reality is that the dominant form of union organisation in the OECD is an 'open shop' one, where firms may continue to operate with the non-union workers that they employ. Within this setting it is possible to investigate the implications of different levels of union density for both the equilibrium trade regime and wages. Paulo uses this model also to examine the response of wages to product market integration in the presence of different levels of union density and finds that, with intermediate levels of union density, wages need neither to fall monotonically as trade liberalisation occurs, nor indeed to fall in absolute terms as an economy moves from autarky to free trade.

In a session on technology transfer, Priit Vahter from the University of Tartu, Estonia, and Bank of Estonia, presented an empirical paper with the title 'Which firms benefit more from the "own-firm" and spillover effects of inward foreign direct investment?" Using a panel of Estonian enterprises he investigates which characteristics of a firm determine whether it can benefit from positive spillovers from inward FDI, the often so-called absorptive capacity. He finds that for the total factor productivity and labour productivity effects of FDI at the subsidiary level the characteristics like export or domestic market orientation of the affiliate may matter. However, selected indicators like exporting, R&D activity, or technology intensity of the sector are not found to matter for benefiting from horizontal spillovers of FDI in Estonia. In other words, it is not possible to say for Estonia that knowledge transferred via FDI is a "club good" in the sense that it benefits more those firms that have similar background or have engaged in other learning/knowledge accumulation (complementary assets creating) activities. This result on the role of market orientation in the effects of FDI may be specific to Estonia or perhaps also to some transition economies and has probably to do with export platform FDI concentrating to a significant extent (at least until year 2001) into relatively labour intensive and cost-sensitive manufacturing.

Concerning the session on trade and developing countries, Ariel Barraud from University of Antwerp (Belgium) presented a paper on the poverty effects of trade liberalisation in Argentina. He makes use of a two-step procedure where in the first stage he considers the change in prices of goods and factors, in both tradable and non-tradable sectors, after a trade liberalisation episode. In a second step these variations are applied to assess the changes in poverty and households' welfare using a micro-simulation approach based on households' survey data. The findings show that poverty is reduced as a result of the policy, and the households that benefit from this reduction are those linked to the nontradable sectors.

Finally, the last session on international financial liberalisation gave the opportunity to Jens Eisenschimidt from the University of Dresden (Germany) to present the paper 'International Capital Flows Meet Corporate Liquidity Demand'. He addressed the issue of international liquidity demand by extending the Holmstroem-Tirole (1998) model on corporate liquidity de-

Conference Participants receives divine inspiration mand to a two country world. By using contract theory in an international macroeconomic model he is able to introduce dual agency problems, as well as differing agency costs between domestic and international investors. This allows a link of the share of foreign capital holdings with the extent of liquidity shock resistance of the domestic economy. When capital is scarce, a higher share of foreign capital implies a more vulnerable domestic economy. Thus countries that want to open up their capital account face a trade-off: a higher level of investment versus an increased vulnerability with respect to liquidity shocks. The findings from Jens' model are that less developed countries are more severely affected by this trade-off and are thus more likely to resort to policy instruments such as capital controls. Moreover, it is shown that domestic capital scarcity will place restrictions on foreign capital inflows: the smaller the domestic capital base, the smaller the amount of foreign capital that can be attracted. This explains why most international capital flows occur between rich countries and offers a fresh view on the missing catch-up predicted in neoclassical growth models.

These are just a sample of the papers presented. For the interested readers, all of the papers are available for download from the GEP conferences website.

The conference obtained positive feedback from the participants and, as usual, we concluded the intense activity with a good pint in the staff club, followed by dinner in a Turkish restaurant in the centre of Nottingham.

Skills and Adjustment

Trade liberalisation places adjustment costs on workers. In models of trade adjustments these costs are assumed to be borne equally by all workers or at most the impacts differ only between by skill levels. Such a view denies the possibility that unskilled workers can re-train and that this cost differs amongst workers, perhaps due to their age. In this paper **Joana Silva** *considers what such a model might look like. Joanna is a PhD student in GEP and presented this paper at the GEP Post-Graduate conference on 11th April.*

Adjustment costs borne by workers are traditionally viewed as transitory and small relative to the benefits of trade liberalisation. A widely held perception is that both should depend on age in some way. However, by treating workers within each skill group as homogeneous, most existing trade models implicitly assume that all skilled and unskilled workers are affected equally.

Another commonly held view is that education plays a role in helping the economy to respond to external shocks. Labour can increase its productivity via investment in human capital. Whether to remain unskilled is an individual's investment decision that can be reversed in the future through (costly) education/retraining. However, existing trade models do not allow for displaced workers' retraining.

This paper seeks to integrate these features into the Heckscher-Ohlin model of international trade. We build a theoretical framework that highlights how workers of different age and ability are affected by an unexpected trade liberalisation in two types of countries: skilled and unskilled labour abundant. Adjustment is modelled as a dynamic process.

We consider two small countries where each economy consists of two manufacturing and one educational sector. The manufacturing sectors (low-tech and high-tech) use skilled and unskilled labour and, at any common factor prices, the high-tech sector is relatively skill-intensive. Markets are competitive and undistorted. Hence, factor returns are uniquely determined by product prices. An increase (decrease) in the relative price of the skill-intensive-good will increase the real return to skilled (unskilled) labour and reduce the real return to unskilled (skilled) labour. Human capital acquisition is endogenous. Unskilled workers are those who enter the labour force without educational training. Education is an activity that transforms unskilled into skilled workers. It is both time- and resource-consuming. It entails opportunity costs (foregone earnings as an unskilled worker) as well as direct costs (tuition fees). The more efficient the educational sector of a country, the lower its tuition fees.

Individuals differ not only in their endogenous education level but also in exogenous ability and age. Ability is uniformly distributed among the population. The productivity, and therefore the gross working earnings of unskilled workers, do not depend on their ability but those of skilled workers do (positively). The benefits of education (the skill premium) depend on workers' individual characteristics; the costs on the efficiency of the educational sector and duration of the additional schooling period needed to be-

SKILLS AND ADJUSTMENT CONTD...

come skilled. The return to education is an increasing function of ability and a decreasing function of age. For any given product (hence factor) prices there is a critical level of ability above which the present value of net returns to education is positive. An increase in the cost of schooling implies a decrease in the number of skilled workers and an increase in the average level of ability of the skilled labour force.

In this context, trade is motivated by differences between countries in relative factor endowments. These differences are endogenous. They can be driven by differences in life expectancies and birth rates, and by differences in the efficiency (costs and duration) of the education sector.

Trade liberalisation, by affecting relative wages, will also affect returns to education. How does the current population (students, unskilled and skilled workers) react? Both the incentive to acquire education and the returns on acquired education change as a consequence of trade liberalisation. Within each group, the gains or losses implied differ, depending, among other things, on a worker age. At the time of the first entry to the labour market, an individual has to decide between entering as an unskilled worker or engaging in educational training and entering later as a skilled worker. For individuals that are no longer at the beginning of their working life, trade liberalisation occurs after they have committed to a course of action based upon their expectations regarding future prices and labour market conditions. Given the new circumstances, these individuals will observe returns on education different from expected.

The model brings additional insights in two domains: dynamics of labour supply during the transition period and trade-induced gains and losses. We find that trade leads to progressive skill upgrading in skilled labour abundant countries; while the converse holds for unskilled labour abundant countries. Adjustment is a dynamic process that may take significantly more time than considered by traditional analysis. Until the new steady-state is achieved, the skilled (unskilled) labour abundant country will have a skill endowment below (above) the steady-state equilibrium level. The rationale lies in the fact that, although all individuals could reverse their previous educational/occupational decisions, for older workers it may be too late to do so. Since skill acquisition is costly, not all unskilled workers with an ability level higher than the new steady state cut-off will invest in human capital. Nor will all skilled workers with an ability level lower than the new steady state cut-off reverse their labour status (work as unskilled). The dynamics of labour supply have effects on specialisation. In particular, in skilled labour abundant countries trade liberalisation leads to a progressive shift to specialisation in the skill intensive good.

In skilled labour abundant countries, skilled workers and students are the winners from liberalisation. They have capital gains in the form of higher returns on education than expected. Among skilled workers with the same level of ability, the older the worker the lower the gains. Conversely, among students, gains are lower for younger individuals that will have to pay higher tuition fees for longer. On the other hand, unskilled workers are losers. More workers choose to become skilled at the beginning of their work life. However, only the more able switchers actually benefit from trade liberalisation (in the sense that they have higher post-trade earnings as skilled, than pre-trade earnings as unskilled, labour). Some experienced unskilled workers will find that they regret their decision to stay uneducated. However, only a proportion of those reverse it. The transition will involve skill acquisition/retraining whose costs are higher as a consequence of trade liberalisation. This is particularly harmful to older workers since they have a shorter period of return to the investment in education. Those that remain unskilled suffer wage losses. The proportion of the population negatively affected by trade liberalisation and the severity of the losses are higher in older age cohorts.

In unskilled-labour-abundant countries, unskilled workers are the winners from trade liberalisation. Students and skilled workers are the losers, since they face returns to education that are lower than those expected when they committed to their course of action. The less able experience capital losses in the form of negative returns on education. These losses are especially high for those who, under the new factor prices, would rather work as unskilled. The transition may involve costly occupational change for these workers. In this case, trade liberalisation is more penalising for younger than older generations. In younger generations there will be more skilled workers facing negative returns on the past investments in education and more students deciding to drop school. Across individuals with the same level of ability, younger individuals suffer higher capital losses on their investment in education.

The results of the model suggest that trade adjustment assistance should focus on older unskilled workers in skilled labour abundant countries and young skilled

Financial Liberalisation and Corruption

While corruption has long been recognised as a significant impediment to development it has recently come to the forefront of the policy and research debate with the recent establishment of a number of anti-corruption initiatives by multilateral agencies such as the UN and OECD. From a research perspective this has led to a growing interest in the determinants of corruption from an empirical and theoretical perspective. In this article **Gonzalo F. Forgues-Puccio** *describes one such contribution to that literature, the relationship between financial liberalisation and corruption. Gonzalo is a PhD in the School of Economic Studies at The University of Manchester and presented this paper at the GEP Postgraduate Conference..*

There is a general consensus that trade liberalization fosters growth. However, there is no such consensus with respect to the growth-enhancing effects of international financial liberalisation. Supporters of the elimination of capital controls make the obvious analogy with free trade to claim that international financial liberalisation promotes a better allocation of resources. In addition, they argue that removing the barriers to cross border financial transactions increases the efficiency of the financial sector and improves risk diversification. In contrast, the critics of international financial liberalisation, by drawing attention to the recent East Asian crisis, argue that opening up the capital account in countries with fragile and distorted financial systems can cause severe financial instability. Moreover, they point out that capital flows could become countercyclical in the sense that will flood the country in booms and flee at the first sign of recession. Many empirical studies have been conducted to test these antagonistic positions. However, the results so far are inconclusive.

In spite of all the efforts that have been put into this debate, little attention has been given to the role of corruption in determining the effects of financial liberalisation. Though, there are good reasons for thinking that the quality of governance is an important factor. First, there are numerous examples of individuals that use overseas accounts to store illegal income. Just to mention the most famous we have the cases of Ferdinand Marcos in the Philippines, Mobutu Sese Seko in Congo (then Zaire), Sani Abacha in Nigeria and more recently Arnoldo Aleman in Nicaragua. Also, we have the particular case of Russia in which capital account liberalisation in the early 1990s was accompanied by a massive capital flight. It is estimated that, between 1994 and 1997, Russian residents managed to accumulate US$68 billion abroad, 33% of illegal origin and 37% of semi-legal origin.

Second, there is evidence that financial liberalisation fosters corruption in developing countries. So far, the econometric studies that have analysed the link between corruption and economic freedom (measured by the economic freedom index of the Frasier Institute) have constantly reported a negative relationship between these two variables. It seems that the higher the level of economic freedom the lower the level of corruption. However, Peter Graeff from the University of Bonn and Guido Mehlkop from the Technical University of Dresden have analysed separately the links between the different components of the index of economic freedom and corruption. Moreover, they have split the sample in developing and developed countries. And in contrast with previous studies they find a robust positive relationship between corruption and international financial liberalisation in poor countries.

Third, there is evidence that corruption affects development only in open economies. In a recent working paper, Zvika Neeman from the University of Boston and Daniele Paserman and Avi Simhon from the Hebrew University of Jerusalem, present an astonishing stylised fact that until now has eluded the attention of researchers. These authors find that in open economies there is a strong negative relationship between corruption and development that cannot be identified in closed economies. This stylised fact is robust to a diversity of empirical specifications. Furthermore, they find that it is financial openness that primarily determines the extent to which corruption affects development.

There are very few theoretical analyses of the relationship between corruption, international financial liberalisation and economic development. One exception is the model developed by Francisco Rivera-Batiz of Columbia University. The model provides a theoretical framework to illustrate how financial liberalisation under certain conditions could stimulate capital flight. Corruption is assumed to act as a tax on firms that innovate and produce new goods in the economy. When the level of corruption is high enough (causing the before liberalisation net of bribes domestic rate of return to capital to be below those in the rest of the world), then the removal of barriers to international financial transactions generates capital flight and a fall in economic growth. In contrast, when the level of corruption is sufficiently low, financial liberalisation will attract capital to the economy, boosting technological change and development.

Our analysis is based on a dynamic general equilibrium model in which corruption and development are jointly determined. Corruption both influences and is influenced by economic development in a negative two–way causal relationship. Consequently, the model presents multiple development regimes. We have a "bad" equilibrium with low levels of development and high corruption and a "good" equilibrium with high levels of development and low corruption. Depending on the initial conditions, the transition between regimes is not feasible. Within this framework we analyse the impact of international financial liberalisation. Our model explains how opening up a non-corrupt economy to international capital flows unambiguously raises capital accumulation and promotes long-run growth, whilst opening up a corrupt economy to cross border financial transactions leads to higher corruption and may reduce capital accumulation.

We use a two period overlapping generations model in which a constant population of agents work and save when young and consume when old. Agents are differentiated according to their abilities between households and bureaucrats. The latter are also heterogeneous in terms of their corruptibility. By offering the right incentives the government hire all the agents with talent for civil service to collect taxes from households and administer public expenditure on its behalf. Corruption arises because the government cannot perfectly monitor the actions of its employees. Thus, corruptible bureaucrats have incentives to embezzle a fraction of the public funds under their responsibility. There are two types of firms in the economy: output producers and capital producers. The former produce final goods by hiring labour from households and renting capital from capital producers and the latter transform private savings into capital.

We model the benefits of financial liberalisation as an increase in the productivity of capital producers due to a higher competition in a financially open economy. Also, we model corruption as a costly activity, both to corruptible bureaucrats and to the government, which has a negative impact on capital accumulation. The model explains that if the economy is in a "good" equilibrium with high levels of development and low corruption, international financial liberalisation has an unambiguous positive effect on capital accumulation and long run growth. However, if the economy is in a "bad" equilibrium with low levels of development and high corruption, liberalising the capital account will increase corruption and generate capital drain. This happens because with no capital controls a corruptible bureaucrat can easily send overseas the proceeds of corruption. This situation has two implications: a lower probability of detection (and hence greater incentives to engage in corruption) and a lower amount of domestic savings available for investment. Hence, depending on the magnitude of the negative impact on capital accumulation, the positive effect on the productivity of capital producers may be more than offset.

GEP Seminar Series

2005/6

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To participate in the series, contact Ben Ferrett, 0115 846 7347 or

Ben.ferrett@nottingham.ac.uk

The World Economy Annual Lecture

'Bazaar Economy'

Professor Hans-Werner Sinn

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

Thursday 27th October 2005

at the University of Nottingham

Leverhulme Globalisation Lecture

Earlier this year Martin Wolf, CBE, Associate Editor and Chief Economics Commentator, *Financial Times*, gave his fourth *Leverhulme Globalisation Lecture*, on the theme of why globalisation works. Martin began by examining the extent to which the world is economically integrated. He argued that globalisation is not new, there is evidence of several previous waves of globalisation and that, while on some aspects the world is more integrated than before, on others it is less so and would benefit from increased integration in these areas. Given the historical evidence of waves, Martin also spent time discussing the threats to globalisation. These threats included insecurity (arising from terrorism, China and resource wars) instability (due to financial crises) interests (that multinational firms might not share the same interests as governments) and ideas (if countries lose faith in markets).

Martin Wolf

As with Martin's previous lectures this was a thought provoking talk that sparked much debate both within and outside the lecture theatre. We were delighted that Martin has agreed to give a *Leverhulme Globalisation Lecture* next year.

Trade and Income Inequality

*In recent years the impact of trade on income inequality has been a topic widely discussed in both academic and policy forums. This issue has been addressed within models where trade is motivated because of differences in technologies and aggregate endowments. However, a large volume of international trade takes place between countries with similar technologies and aggregate endowments but work in this area has focused in explaining their patterns of trade. In this article **Spiros Bougheas** summarises theoretical results from his joint work with **Raymond Riezman** (University of Iowa) where they argue that the implications for inequality and welfare of this second type of trade have not been fully explored. Spiros is an Internal Research Fellow of GEP.*

Spiros Bougheas

What has triggered interest in the relationship between trade and inequality is a growing concern among industrialised nations about their ability to sustain high standards of wellbeing in the face of competition from low wage countries. It is well understood that trade produces both winners and losers. It is also well understood that if it is accompanied by an appropriate compensation scheme it will Pareto-dominate autarky. However, it is not clear at all whether, in models with agent heterogeneity, there exist socially acceptable mechanisms that can implement such Pareto optimal outcomes, for example, when both the trade regime and any redistribution schemes are decided by a majority rule.

In order to address these issues we have developed a two-country, two-sector model of trade where the only difference between the two countries is in their distribution of human capital endowments. Their technological capabilities and the preferences of their consumers are identical. In each country there is a primary sector where output is produced using labour and a high-tech sector that uses human capital as its input. We have demonstrated that, even if the two countries have identical aggregate human capital endowments, they will trade with the patterns of trade depending on the properties of the two human capital distributions. In fact, in our framework, differences in size do not affect the patterns of trade. Knowledge of the two human capital distributions is alone sufficient.

We have also shown that together the two distributions of endowments also completely determine the effects of trade on income inequality. More specifically, we have found that the latter always rises in the country that exports the high-tech product and declines in the country that exports the primary commodity. However, knowledge of endowment distributions alone is not sufficient for drawing general conclusions about the impact of trade on the world income distribution. Nevertheless, our results suggest that trade reduces the gap between the rich and the poor and that there is income convergence within sectors. However, without any information about the two human capital distributions we cannot make any general statements about world inequality. In fact, whether the gap between two countries' inequality measures increases or decreases after they trade depends on the patterns of trade which, in turn, depend on the two endowment distributions.

Our next step was to explore the welfare implications of our model. Not surprisingly, we have proved that there are long-term gains from trade as long as losers are compensated. We have compared total welfare under autarky with the corresponding welfare under trade and find that, unless the marginal utility of income is constant, there exist free-trade equilibria that are welfare reducing. To get a good intuition for this result, consider the following example. We already know that trade will increase inequality in the country that exports the high-tech good. But this implies that trade in addition to any net gains redistributes income from the poor to the rich. This second effect is welfare reducing when the marginal utility of income is decreasing.

Given our welfare results, it is natural to ask what is the relationship between the initial distribution of endowments and aggregate welfare assuming that the issues of openness and compensation are decided by a majority vote. We provide a complete characterisation of politico-economic outcomes and find that there exist equilibria that do not enhance welfare. We have considered two types of votes. In the first vote, agents only decide between "Trade" and "Autarky". In the second vote agents they choose between "Autarky", "Trade with Redistribution" and "Trade without Redistribution". Welfare reducing politico-economic equilibria are obtained either because the majority decides that the country should not trade or that it should trade but not provide any compensation for losses from trade.

Visitors to GEP 2004/5

September 2004	October 2004	December 2004
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*

February 2005	March 2005	May 2005
Professor Arye Hillman Bar-Ilan University	Professor Carl Davidson *Michigan State University* Dr Hartmut Egger *University of Zurich* Professor Peter Egger *University of Munich* Professor Daniel Bernhofen *Clark University*	Professor Peter Egger *University of Munich* Andrew Gurney *HM Treasury* Professor Steven Matusz *Michigan State University* Professor Ray Riezman *University of Iowa* Professor James Tybout *Penn State University* Ken Warwick *Department of Trade and Industry*

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