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Major conference marks first anniversary of GEP in China

When GEP opened a centre at the University of Nottingham, Ningbo, in November 2008 the intention was to have a facility at the very centre of the globalisation process. The wisdom of that move was more apparent than ever when GEP in China celebrated its first birthday with a major conference: The Global Financial Crisis.

GEP marked the first anniversary of the opening of its centre in China by hosting a major international conference on the world financial crisis.

China's own likely role in the wake of the seismic economic shocks that began in the middle of 2007 was among the topics that came under the spotlight at the prestigious event.

Leading authorities on the country's rise to superpower status were among delegates who travelled from around the world to attend the conference, entitled The Global Financial Crisis.

Topics discussed included how nations might respond to a collapse in exports, how they might recover from the crisis in general and how China in particular might avoid a second 'credit crunch'.

Issues such as openness, liberalisation, foreign direct investment and trade reforms – all vital factors in China's transformation during the past 30 years – were also tackled.

The centrepiece of the event was the second The World Economy Annual China Lecture, delivered by the University of Oxford's Professor Tony Venables and sponsored by Wiley-Blackwell.

The conference was held on 10 and 11 November at the University of Nottingham, Ningbo, where GEP established a centre – its second overseas facility – in November 2008.

• Professor Tony Venables delivers the 2009 The World Economy Annual China Lecture

Professor Shujie Yao, co-ordinator of GEP's China and the World Economy programme, said: "We were delighted to return to Ningbo.

"We are rightly proud to have a presence in a country that, perhaps now more than ever, represents the very epicentre of the globalisation phenomenon.

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"The conference was a great success. Events like this assist greatly in fully realising the enormous potential of GEP in China."

• Professor Alan Duncan addresses the conference

"The conference offered us an excellent opportunity to show how we are continuing to enhance our standing and credibility by adding to the understanding of contemporary China around the world – particularly during these extraordinary times."

Earlier this year Professor Yao sparked major debate in the Far East by suggesting the credit crisis has massively reduced the time China needs to overtake Japan and become the world's second-largest economy.

In making his prediction – since endorsed by many leading analysts and commentators – he described the global slump as a "once-in-a-century" chance for the country to cement superpower status.

As reported elsewhere in this Newsletter, at the conference he presented a paper entitled On Economic Theory and Recovery of Financial Crisis.

GEP's founder and former Director, Professor David Greenaway, now Vice-Chancellor of the University of Nottingham, was among the speakers, as were Dr Guangua Wan, of the Asian Development Bank; Professor Bob Anderton, of the European Central Bank; and Professor Wing Thye Woo, a Senior Fellow at the Brookings Institution.

GEP, the University of Nottingham's School of Contemporary Chinese Studies and Fudan and Zhejiang Universities co-organised the event.

Professor Yao said: "The standard of our inaugural conference in Ningbo proved we were right to have every faith in the success of GEP in China – and, if anything, the quality this year was even higher.

"Equally, our foresight in opening the centre has only been augmented by recent developments, which have seen China take on an even more crucial role at the heart of the global economy.

"It was fascinating to share research and opinions on how the financial world can recover and move on from the crisis – and, of course, the significant part China will play in that journey."

Professor Alan Duncan, Head of the Nottingham School of Economics, who led the GEP delegation, added: "The conference was a great success. Events like this assist greatly in fully realising the enormous research potential of GEP in China." <

Korea event adds to GEP's Far East links

Just days after leaving Ningbo the GEP delegation took part in a conference at Korea University, Seoul. Here one of the delegates, Spiros Bougheas, reflects on an event that further strengthened the Centre's impressive links with Asia.

The recent financial crisis is not only having severe consequences for international trade flows but is also disrupting links between countries established by the activities of multinational firms. The general aim of the one day-conference – entitled The Global Financial Crisis: International Trade and Financial Architecture – was to examine the impact of the current crisis on trade and capital flows between the South-East Asian region and the rest of the globe.

Professor David Greenaway, GEP's founder and now Vice-Chancellor of the University of Nottingham, delivered the event's keynote speech. He offered an overview of the current crisis, carefully describing the financial developments that brought the global banking system to its knees, before giving a detailed presentation of the unfolding of the crisis over the past couple of years.

In the first session of the conference presenters discussed factors that affect the establishment of multinational activity. As reported in more detail elsewhere in this Newsletter, Dr Chang Liu (GEP, University of Nottingham, Ningbo) stressed the importance of social infrastructure investment in local education for the attraction of foreign firms in China's hinterland. The relationship between trade liberalisation and the integration strategies of multinationals was the subject of a talk by Dr Hea-Jung Huyn (Korea Institute for International Economic Policy), who, using Korean firm-level data, has shown trade openness is positively related to cross-border vertical integration.

Useful lessons drawn from past experience were provided in the second session. The detrimental effects for macroeconomic performance of world trade disputes that seem to pick up at times of economic downturn were stressed in a talk by Professor Jong-Eun Lee (Sejong University). Dr Spiros Bougheas (GEP, University of Nottingham) suggested the East Asian Crisis of 1997 can help policymakers evaluate how firms in the same region will adjust to current challenges.

The final session emphasised the important role of well-functioning institutions. The conference heard that enforcing and thus encouraging contractual relationships leads to both multinational activity (Professor Hongshik Lee, Korea University) and exporting activity (Dr Zhihong Yu, GEP, University of Nottingham).

GEP was delighted to take part in the conference, which the Centre co-organised with Korea University and the Korea Institute for International Economic Policy. As we have said many times in the past, continuing to forge links with the Far East – increasingly the epicentre of the globalisation phenomenon – can only enhance our research capacity and our understanding of the region.

We would like to take this opportunity to thank our hosts, particularly GEP External Research Fellow Professor Innwon Park, of Korea University's Division of International Studies, and Professor Youn Min Park, of Korea University's Global Research Institute. <

The 2009 The World Economy Annual China Lecture

The centrepiece of the conference was the 2009 The World Economy Annual China Lecture, delivered by Professor Tony Venables, Professor of Economics at the University of Oxford and Director of the Centre for the Analysis of Resource-Rich Economies. Here GEP delegate Zhihong Yu examines its significance.

Professor Venables' lecture, entitled Climate Change: International Funding for the Global Deal, was certainly timely.

It came just a month before the landmark United Nations Conference on Climate Change in Copenhagen, an event hailed by the UN as "a turning point in the fight to prevent climate disaster".

In the words of Yvo de Boer, Executive Secretary of the United Nations Framework Convention on Climate Change: "At Copenhagen governments must reach agreement on all the essential elements of a comprehensive, fair and effective deal on climate change that both ensures long-term commitments and launches immediate action. We have the opportunity now to shape our common future – and that of generations to come – for the better.

"Climate change is a terrible threat, but beating it is an historic opportunity to turn humanity on to a path of sustainable growth for everyone. The solutions to climate change will vitalise economies, stabilise environments and build secure, fairer, more innovative societies. Not only must we act – it makes no sense not to act."

It was therefore particularly interesting that one of the key messages to emerge from Professor Venables' lecture was that the majority of the CO2 emissions reductions needed to tackle the problem of global warming will have to come from developing countries.

More precisely, limiting temperature increases to 2°C above pre-industrial levels will require 17 gigatons' worth of emission reductions – 12 from developing nations and five from developed countries.

It will take substantial funding to achieve this goal. In particular, nine gigatons of the developing countries' reductions will have to be funded by the developed world. According to the McKinsey Global GHG Abatement Cost Curve, this equates to 65-100bn euros a year over the next decade to fund the developing world – with China alone accounting for 16-22bn euros.

So where should this money come from – the private sector or public funding? Professor Venables pointed out that the ability of markets to provide effective financing is a function of the emissions targets set by the government regulating the market. The targets need to be sufficient to create domestic mitigation potential in the developed world and generate demand for offset carbon credits to finance mitigation efforts in the developing world.

Even under a 40% aggregate cap for the developed world, said Professor Venables, significant public financing would still be required. In turn, intermediation in the carbon markets – either internationally or nationally – would be necessary to limit the pressure on public finances.

Finally, how would this 100bn euros' worth of funding be channelled?

"Limiting temperature increases to 2°C above pre-industrial levels will require 17 gigatons' worth of emission reductions – 12 from developing nations and five from developed countries."

Should it be formula-based or responsive? What is the ideal overarching structure? According to Professor Venables, there are numerous alternatives, among them a world body selecting projects, a world body funding sectoral programmes and countries bidding for funds and spending as they see fit.

Professor Venables suggested the architecture for transferring funds should be built on existing institutions and draw on experience with development aid.

He added: "All countries should produce a Low Carbon Growth Plan as a way to operationalise developing country mitigation and adaptation actions. These provide the basis for bidding for resources and are 'country-led'." <

A PowerPoint presentation accompanying Professor Venables' lecture, as well as further photographs of his appearance at Ningbo, can be found at http://www.gep.org.uk/leverhulme/events/Conferences%20announcements/2009_Nov_Ningbo_Conference.php.

Crisis demands new economic theories, says GEP expert

Most economic models have traditionally been built on the assumption that people behave rationally. Speaking at GEP in China's The Global Financial Crisis conference, Professor Shujie Yao, co-ordinator of GEP's China and the World Economy programme, argued recent events have proved the danger of invariably employing such a premise.

The global financial crisis has exposed the shortcomings of basing economic models on assumptions of rational behaviour, GEP's leading Chinese academic has claimed.

The very opposite – people's irrationality – was crucial to the meltdown and will also determine the nature of recovery, Professor Shujie Yao told GEP in China's The Global Financial Crisis conference.

"It is no easy task to come up with a new economic theory that can predict – let alone prevent – the occurrence or re-occurrence of a world financial crisis," he told an audience of distinguished delegates from around the world.

"But economists should not try to avoid responsibility and should instead think harder about why existing economic theories have failed to serve their purpose."

Professor Yao is the co-ordinator of GEP's China and the World Economy programme and Head of the University of Nottingham's School of Contemporary Chinese Studies.

In an article published in the Journal of Asian Economic Literature he was ranked in the top 10 Chinese scholars specialising in the country's economy.

Speaking at the conference, he suggested a new theory, defined as "the asymmetric psychological reaction of market players to gains and losses", to explain the financial crisis.

He said: "Traditional economic models are mostly based on the assumptions of rational behaviour of individuals and efficient markets.

"But many individuals – whether they are consumers, investors or firms – are irrational in the real world, and many markets are not efficient in adjusting to new equilibriums.

"Market players tend to take excessive risks when the economy is booming and be overcautious when the market is low."

Professor Yao's theory is founded on the basis that people care less about a gain in a booming market than they care about a loss of the same amount in a collapsing market.

He explained: "When markets are high most people tend to make financial gains. They derive happiness through these gains, but the marginal happiness diminishes as more gains are made.

"To derive more happiness – and in part driven by greed and speculation – they have to take more risk by investing more. This is what makes the market inflated and forms the 'bubble'.

"In a crisis situation – that is, once the bubble has burst – consumers,

"Economists should not try to avoid responsibility and should instead think harder about why existing economic theories have failed to serve their purpose."

• Professor Yang Fujia, Chancellor of the University of Nottingham, opened the conference

investors, firms and even governments have lost confidence in the economy.

"And confidence cannot be easily recovered, because most people behave 'irrationally' in the sense that they tend to overestimate potential losses.

"This is due to the inevitable law that marginal unhappiness caused by consecutive units of losses increases rather than diminishes.

"After a certain level of losses people are hesitant to make any investments at all, even if in the long term investments in a depressed market can potentially earn high returns."

Professor Yao said his theory had important policy implications, adding: "The role of state and government is to improve people's confidence through various interventions in the economic system.

"For instance, the current rescue packages of the G20 governments

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“State policies should aim to reduce ‘collective irrationality’ by discouraging excessive risk and structural imbalances.”

• Delegates at GEP’s The Global Financial Crisis conference, where Professor Yao made his call for new, post-crisis economic theories

are an important instrument to prevent the whole world economy from collapsing.

“But they are short-term policies to reduce the impact of the crisis. In the longer term, when the crisis is over, central banks and governments have to think hard about why things went so wrong.

“More attention should be paid to spot and predict the development of potential market bubbles and make sure effective policies stop them developing by cooling people’s expectations.

“State policies should aim to reduce ‘collective irrationality’ by discouraging excessive risk and structural imbalances. For example, the adjustment of interest rates should be as counter-cyclical as possible.

“Stricter regulations and financial control should be implemented before the market starts to boom. By contrast, more state support and more relaxed regulations should be implemented before it is about to bust.” <

This article is based on On Economic Theory and Recovery of Financial Crisis, by Shujie Yao (University of Nottingham) and Jing Zhang (University of Nottingham).

Protectionism would 'devastate' recovery prospects

Growing calls for protectionism have raised the spectre of an economic slump to rival the Great Depression. GEP in China's The Global Financial Crisis conference considered a stark warning from economists at the European Central Bank – that the demands for protectionist measures should be strongly resisted.

Growing calls for protectionism must be resisted to avoid the risk of a return to the economic nightmare of the 1930s, GEP in China's The Global Financial Crisis conference was told.

Daria Taglioni, of the European Central Bank, warned the dangers of protectionism in the wake of financial meltdown remain high and should not be neglected.

Ms Taglioni, Senior Economist at the ECB, added that an escalation of pressures could trigger high-intensity protectionism as a reaction to the crisis.

A year ago, for example, G20 leaders committed to "refrain from raising new barriers to investment or trade in goods" – yet, according to Gamberoni and Newfarmer (2009), since then 17 of the 20 nations have announced protectionist measures.

Ms Taglioni said: "Fears of rising protectionism come at a delicate time for the world economy, as global trade flows have considerably weakened since the end of 2008.

"Not only has world trade been severely hit by the drop in demand but trade itself has propagated the crisis across borders, making it a truly global phenomenon.

"Against this background, a resurgence of protectionism would have devastating effects on the recovery process by further hampering already-weak trade flows and global demand."

ECB researchers studied a range of indicators, including changing attitudes to globalisation, to assess the likely effects of protectionism in light of the current crisis.

They concluded it would lead to a "worldwide loss" in efficiency and productivity by reducing the average size of firms, prompting higher prices for consumers.

Ms Taglioni said: "The consequences of a rise in protection are potentially very substantial.

"The outburst that followed the 1929 market crash is considered to have contributed to the propagation of the crisis and to a marked worsening of the Great Depression.

"The possibility that a similar event will materialise in the aftermath of the current crisis should not be ruled out."

Ms Taglioni stressed, however, that a comparison with the dark days of the 1930s might not be "fully justified" for a number of reasons.

Public opinion favours free trade, and general support for globalisation – though roughly evenly split in many EU nations – is high in developing countries and emerging market economies.

"A resurgence of protectionism would have devastating effects on the recovery process by further hampering already-weak trade flows and global demand."

In addition, countries are now bound by a series of treaties and free trade agreements designed to limit the scope for moves towards protectionism.

Yet Ms Taglioni said it would still be dangerous to ignore the fact that demands for protectionism have been growing significantly since the financial crisis unfolded.

She concluded: "Model-based simulations suggest the impairment of the global flow of trade would hamper the recovery process, as well as the long-term growth potential of the global economy.

"It is also unlikely that protectionism would help correct existing imbalances, and countries that implement such measures should expect a deterioration of their international competitiveness." <

This article is based on Protectionist Responses to the Crisis: Global Trends and Implications, co-authored by Daria Taglioni, Matthieu Bussière, Emilia Pérez-Barreiro and Roland Straub (all ECB) and forthcoming as an ECB Occasional Paper.

Education as important as infrastructure for continued growth

Until recently China's hinterland has been hugely overshadowed by the country's east coast in terms of attracting foreign investment. Last year it enjoyed a huge boost in FDI, but how can policymakers ensure continued success? GEP in China's The Global Financial Crisis conference heard infrastructure is not the be-all and end-all.

China's hinterland needs to invest in education as well as infrastructure if it is to continue to attract foreign direct investment, delegates at GEP in China's The Global Financial Conference were told.

The country's central and western regions have enjoyed far less FDI than its eastern coastal area in the course of the sweeping economic reforms of the past 30 years.

But in 2008 the hinterland finally experienced a dramatic boost, with FDI flows to the central and western regions rocketing by 102.8% and 139.3% respectively.

Now policymakers need to think carefully about how they go about maintaining the surge, according to Dr Chang Liu, a Lecturer in International Business at Nottingham University Business School China.

Using data from the China City Statistical Yearbooks from 1999 to 2007, Dr Liu examined what kinds of infrastructure investment helped encourage foreign firms' interest in almost 100 hinterland cities.

Transport infrastructure was measured by the area of paved road per capita in a city, while the standard of communications was gauged by the number of land phone users per 10,000 of the population.

The government's investment in improving local education infrastructure, meanwhile, was measured by the number of students enrolled in third-level education per 10,000 of the population.

As expected, the study found that improving transport links and information/communication levels was crucial to attracting FDI.

But investing in education also proved to be "highly correlated" with inflows – unlike investing in municipal care or cultural and recreational facilities.

Dr Liu said: "Huge amounts of capital have been spent on improving infrastructure since the launch of the Western China Development Strategy in 2000 and the Central China Rising Strategy in 2004.

"The transportation sector has received most of the investment, while the education sector has received much less by comparison.

"Yet our study indicates investment in improving local education can attract more FDI flows compared to investment in improving transportation."

In 2000, at the Ninth National People's Congress, then-Premier Zhu Rongji announced five focal points for developing the western region:

- Accelerating infrastructure construction – especially in, among others, transportation and communication

"Investment in improving local education can attract more FDI flows compared to investment in improving transportation."

• Chang Liu

- Strengthening ecological and environmental protection
- Adjusting the industrial structure to give priority to industries with market prospects
- Developing technology and education and accelerating personnel training
- Deepening reforms and openness by adopting policies to attract domestic and international funds, technology and management experience.

A similar framework was used when proposals to support the central region were unveiled four years later.

In light of the study's findings, said Dr Liu, government should consider shifting the emphasis when allocating future resources to further the hinterland's cause.

"Our first suggestion to policymakers would be to recognise that investment in education is just as important as improving economic infrastructure," he told the conference. <

This article is based on Financial Crisis and FDI's Interest in China's Hinterland: a Quest for Social Infrastructure Factors, by Dr Chang Liu (University of Nottingham, Ningbo).

New challenges require more risk, GlaxoSmithKline CEO tells GEP

An alumnus of the Nottingham School of Economics, GlaxoSmithKline Chief Executive Officer Andrew Witty is in charge of a multinational company with in the region of 100,000 employees around the world. Few people could therefore offer a better insight into the effects of gloablisation, as he proved when he visited GEP in November.

Healthcare companies need to be more flexible and innovative if they are to advance the future cause of medicine, the head of GlaxoSmithKline told an audience at GEP.

GSK Chief Executive Officer Andrew Witty said factors such as the global demographic surge and emerging markets were making far-sighted new research more vital than ever.

He made his comments in a speech delivered as part of GEP's prestigious Leverhulme Globalisation Lecture Series, which features major commentators and analysts from the media and senior figures from the policymaking and business communities.

GlaxoSmithKline is among the world's largest healthcare companies and created one of the swine flu vaccines currently being used around the globe.

Describing the pharmaceuticals industry as "politicised, high-risk and very capital-intensive", Mr Witty told his audience: "There are few businesses that operate on horizons as long as ours – or are as risky.

"Take the production of our swine flu vaccine. GSK started investing in the research and technology that have made that vaccine possible back in 1992, and the first production batches were completed just three weeks ago.

"Over the recent few years alone we have invested more than $3bn to build up our capabilities so we can deliver a vaccine.

"If I also tell you that for every hundred molecules we take into development only one will be launched, it gives you a sense of how long-term and risky this business is."

With an outlay of £3.6bn every year, GSK is by far the largest private sector research investor in the UK.

Mr Witty, who studied economics at the University of Nottingham, added: "We have 13,000 researchers in GSK. They all work to very long time-frames – often in excess of 10 to 20 years.

"We are totally focused on how to keep these scientists motivated, because they have the ability to really make a difference – they could find that holy grail, that needle in a haystack.

"Making sure drug discovery is not an industrial process but rather a product of small, focused and empowered teams is key.

"On top of all of that, the world is very dynamic right now. Massive demographic, political and economic change is making the affordability of healthcare provision a bigger issue for governments everywhere. Think about how that plays in a business where it takes you 20 years from the beginning of the investment curve to seeing a product.

"The reality of today is that you have to push yourself further out on the risk curve. The idea of developing medicines that are a little bit better than the ones we have already is really a waste of time."

"How are you going to figure out whether you're still in synch with what the market needs? Because what the market said it needed 20 years ago may be very different from what the market needs today.

"The reality of today is that you have to push yourself further out on the risk curve. The idea of developing medicines that are a little bit better than the ones we already have is really a waste of time.

"You have to be looking more and more for treatments for diseases that have so far not been met or treatments for diseases that are materially advanced from what's out there today.

"This is where you will begin to see vaccine technologies move away from areas you're familiar with, like flu and pneumonia.

"You'll start to see vaccines for the treatment and management of cancer, chronic obstructive airways disease and, ultimately, nicotine dependency and other conditions that up until now you wouldn't really have considered potentially viable."

Mr Witty said a shift towards new economies was also changing the industry's focus.

"In the past it was all about the US and, to a lesser degree, Europe. Today both are still important markets, but they're both clearly mature," he said.

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"In the past it was all about the US and Europe. Now the growth is clearly in the emerging economies... and you have to re-engineer your organisation to fit that."

• Andrew Witty speaks to students after his lecture

"The growth is clearly in the emerging economies of the world, particularly China, India and Brazil, supported by the emerging Asian economies and the Middle-East/North African territories.

"That's where you're seeing tremendous liquidity and great moves forward in terms of healthcare prioritisation, and as a result you have to re-engineer your organisation to fit that.

"But that doesn't mean we're just focused on these markets. We're also committed to doing all we can for the world's poorest countries and Neglected Tropical Diseases in particular."

Earlier this year GSK announced the creation of a "patent pool" revealing all its intellectual property regarding the most neglected diseases in Africa.

It also pledged to cut the price of its patented drugs in Africa by 75 per cent and redeploy a sizeable percentage of profits straight back into healthcare infrastructure.

Mr Witty said: "We've started to challenge the way in which the industry operates in the least developed countries of the world. We're trying to change the agenda.

"There's a moment when you realise you have in your hands a degree of influence or power – however you want to describe it – that very few people have. You'll have it for a short period of time – and at the end of that period how are you going to look back and feel about how you used that influence?

"Are you going to look back and say: 'I did a great job of serving shareholders?' Or are you going to look back and say: 'I did a great job of serving shareholders and did everything I possibly could for a population who are underserved and not getting what they need from the system?'

"My view is that I want this organisation to do the most it can possibly do for people who find themselves in the situation I've just described."

Professor Alan Duncan, Head of the Nottingham School of Economics, who introduced the lecture, praised Mr Witty as "an unrivalled authority on the effects of globalisation". <

The adverse impacts of international outsourcing

International outsourcing has become a much-discussed phenomenon – not just in the academic world but in the media. Research by GEP's Arijit Mukherjee suggests policymakers will need to consider its implications with care if its long-term adverse effects are to be tackled successfully.

International trade in inputs, often referred to as international outsourcing, is not a new phenomenon. The economic literature on this issue dates back to Sanyal and Jones (1982). However, in recent years the literature on international outsourcing has focused on its strategic and organisational aspects (see Spencer, 2005, for a recent survey).

International outsourcing has emerged as a popular topic of discussion both in academia and the media. At the centre of debate have been the issues relating to the outsourcing of jobs and its impact on labour markets.

The concern that international outsourcing of unskilled and semi-skilled activities can lead to large job-losses in developed countries remains, even though several studies have shown that recent job-losses in the USA are due primarily to the rise in manufacturing productivity (Schultze, 2004), the structural transformation of the economy (Groshen and Potter, 2003) and the interplay between weak market demand, rapid productivity growth and the strength of the US dollar (Baily and Lawrence, 2004). There are also growing concerns about the negative effects of outsourcing on product quality (see http://www.manpower.co.uk/news/OutsourcingSurvey.pdf).

Recent research by Arijit Mukherjee (with Sugata Marjit and Yingyi Tsai) shows there are other reasons, besides the employment and quality effects, that might create concern about the welfare effects of international outsourcing.

Mukherjee and Marjit (2008) point out that international outsourcing, by creating a source of lower wage rates, might have an adverse impact on the R&D investment of the outsourced firms. Moreover, this negative effect on innovation might dominate the positive effect of outsourcing created by the lower wage rate.

Hence international outsourcing might increase the net marginal cost of production – which is the product of wage rate and labour coefficient that is determined by the innovative activity of the outsourced firm – and affect consumers adversely. Policymakers should therefore see beyond the immediate effect of outsourcing, since its long-term effect might not be positive.

In another work Mukherjee and Tsai (2009) show how international outsourcing might reduce the welfare of the outsourced country by acting as an entry-deterrence strategy. Although it reduces the outsourced firm's production costs, international outsourcing might prevent other firms – those that, due to the significant transaction and resource costs, do not find it profitable – from entering the market.

If both profit extraction and cost-saving from outsourcing are small then the entry-deterring effect might outweigh the cost-reducing benefit. The negative impact of outsourcing becomes more prominent with a higher domestic consumption of the product. An immediate implication of this finding is that public policies designed to encourage market entry deserve greater attention in the presence of international outsourcing.

• Arijit Mukherjee

In summary, the impact on other long-term business strategies and the market structure should be considered carefully when evaluating the effects of international outsourcing. Complementary policies might be required to tackle the adverse impacts of the phenomenon. <

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Globalisation and the distribution of domestic sales

Globalisation is commonly thought to magnify underlying differences between firms. However, new research by Volker Nocke (University of Mannheim and University of Oxford) and Stephen Yeaple (Pennsylvania State University) predicts it could actually lead to a flattening of the distribution of domestic firm sales.

At least since Robert Gibrat's Les Inégalités Économiques (1931), economists have studied the size distribution of firms (see also Simon and Bonnini, 1958; Lucas, 1978; and Sutton, 1998).

In light of this, it is perhaps surprising that they have neglected the effects of aggregate economic shocks – such as trade liberalisation – on the size distribution of firms. Volker Nocke and Stephen Yeaple, in their working paper Globalisation and the Size Distribution of Multiproduct Firms, are the first to tackle this question.

Since they are known to be highly diversified, large firms develop a theoretical model in which firms choose both their scope (how many products they manage) and their scale (how much they produce of each product). The paper thus contributes to the nascent literature on multiproduct firms in international trade (see Bernard, Redding and Schott, 2006; Eckel and Neary, forthcoming).

Nocke and Yeaple's approach integrates two strands of the corporate finance literature. Following the literature on "firm focus", they posit that there is a trade-off between scope and productivity: the more products a firm manages, the less effective it is at managing each one of them (perhaps because of a limited span of managerial control). Indeed, Schoar (2002) established empirically that existing divisions of a firm become less productive when the firm expands its scope. Following the literature on the "resource-based view of the firm", Nocke and Yeaple posit that firms differ in their organisational capabilities. Firms with greater organisational capability suffer less from the trade-off between scope and productivity.

In the first part of their paper Nocke and Yeaple analyse a closed-economy setting under monopolistic competition. They derive the industry equilibrium and study the link between organisational capability and the optimal choice of scale and scope. They show that firms with greater organisational capability choose a larger number of products than firms with lesser organisational capability – so much larger, in fact, that, despite being intrinsically more efficient, they end up having higher marginal costs. The resulting relationship between firm size (sales) and the ratio of market value to book value (Tobin's q) is negative. The model can thus explain the well-known "size-discount puzzle" (Lang and Stulz, 1994) found in the data, which is at odds with standard trade and IO models.

In the second part of their paper Nocke and Yeaple extend the model and consider a two-country general equilibrium setting so as to study the effects of globalisation. There is a competitive merger market where firms can trade property rights over products (or divisions). Nocke and Yeaple show that, following a multilateral trade liberalisation, large (high-cost) firms downsize by divesting products (divisions) that are acquired by small (low-cost) firms – that is, consistent with the data (Breinlich, 2008), there is a liberalisation-induced surge of partial firm acquisitions and divestitures, which affects productivity at the industry, firm and product levels.

"It is perhaps surprising that economists have neglected the effects of aggregate economic shocks – such as trade liberalisation – on the size distribution of firms."

In the model, globalisation affects the (domestic) size distribution of firms through a "scope effect" (a globalisation-induced adjustment of firm scope) and a "competition effect" (a globalisation-induced adjustment of firm scale). Both effects work in the same direction: globalisation leads to a flattening of the distribution of domestic sales. An exciting avenue for future research is to test this prediction empirically. <

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The role of human capital in productivity spillovers from FDI

How important a part does human capital play in productivity spillovers from foreign direct investment? Seda Köymen and Selin Sayek (both Bilkent University) shed new light on the question by examining the interaction between multinationals and domestic firms in Turkey.

Foreign direct investment is considered to be an important channel for technological diffusion among countries. Domestic firms may gain access to new technologies by imitating the products and techniques of multinational firms; or they may draw upon their managing and marketing skills. Such knowledge and technology transfers occur through three types of linkages: horizontal, forward and backward.

"One possible explanation underlying the diversity of the empirical evidence regarding the existence of productivity spillovers might be the different characteristics of domestic firms within a country."

• Seda Köymen

• Selin Sayek

The existing literature on the importance of horizontal linkages – the result of foreign and domestic firms interacting and competing within the same sector – has found limited horizontal spillover benefits are realised by domestic firms amid increased foreign firm activity. This suggests foreign firms limit the possible channels of positive spillovers to domestic firms to protect their competitive power in the market and their proprietary knowledge.

On the other hand, further empirical findings suggest multinationals are more likely to transfer their technology to their input suppliers or purchasers. This might lead to intersectoral spillovers from FDI – that is, vertical spillovers or backward and forward linkages. However, the evidence regarding vertical spillovers is not so robust across different econometric studies, where the results change across time periods and countries.

One possible explanation underlying the diversity of the empirical evidence regarding the existence of productivity spillovers might be the different characteristics of domestic firms within a country. These characteristics, defined as the absorptive capacities of domestic firms, could include the level of technology available to the domestic firm (or the gap between this technology and that owned by the foreign firm); the skill level of the firm's labour force; the firm's size; the firm's access to financial markets; and the firm's exporting status.

Using a simple theoretical set-up, Borensztein et al (1998) show the human capital level of a country contributes positively to the marginal productivity of capital, which is further deepened with the FDI inflows and therefore is a precondition for the positive growth effects of FDI to be realised. In a recent study, using firm-level data, we decompose this effect and investigate through which channel of linkages the human capital endowments of local firms act as an absorptive capacity.

The analysis is carried out with an unbalanced panel of data for Turkish manufacturing firms, covering the period 1990-2001. Three important result stand out.

1. There are vertical spillovers from FDI.

Our findings suggest Turkish manufacturing firms have no significant productivity spillovers from foreign firms through their horizontal linkages. Multinationals competing with domestic firms might try to inhibit information leakages, either through use of intellectual property rights and trade secrecy or by paying higher wages than domestic firms to prevent any labour turnover that would carry knowledge with it. Avoiding labour turnover could also lead to a brain-drain of skilled workers from local firms to foreign firms, diminishing the former's productivity. Finally, as multinationals acquire market shares in the host economy, this might divert demand from domestic firms, increasing their average costs and further decreasing domestic firm productivity (see Blalock and Gertler, 2008, and Javorcik, 2004).

On the other hand, results suggest Turkish local firms benefit from the backward linkages with multinationals while being negatively affected by forward linkages. As multinationals demand higher-quality inputs, they will try to improve the efficiency of their intermediate input

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suppliers by direct knowledge transfer. Furthermore, local suppliers will have an incentive to improve their production techniques. Finally, entrance of a multinational into the final goods sector might create benefits of scale for domestic suppliers. These factors all point to positive backward spillovers. By contrast, domestic firms might be affected negatively from forward linkages, as they are not able to use the high-quality and more expensive inputs produced by multinationals (see Javorcik, 2004, and Blalock and Gertler, 2008).

2. It takes time to realise the overall effect of spillovers.

Results further suggest vertical spillovers are not only realised in the current period of foreign firm activity but continue to influence a local firm's productivity over time. Indeed, the positive backward spillovers seem to be the result of a positive spillover effect in one year's time dominating a negative spillover effect in the current period of foreign firm activity. By contrast, negative forward spillovers seem to be the result of a positive forward spillover in the current period that is dominated by a negative forward spillover effect in one year's time.

3. Firms with a higher level of human capital benefit more from horizontal linkages, whereas the skill composition of the firm plays an absorptive capacity role in the realisation of vertical linkages.

Across a wide set of regressions, we find only local firms that have the skill composition to allow them to imitate or compete with multinationals are able to positively and significantly benefit from horizontal linkages with multinationals. Domestic firms with more human capital are expected to imitate multinationals more easily, to better avoid the negative effects of competition from them and, finally, to be able to reallocate resources to R&D activities with a higher probability. This result points to the possibility that the elusive horizontal spillovers in the previous analysis could be due to the lack of controlling for the role played by the skill composition of the local firm – and hence its absorptive capacity.

In summary, we find human capital plays a significant role in allowing for horizontal spillovers to occur while playing no role in allowing for forward or backward spillovers to take place. This finding suggests the aggregate effect found in country-level studies is indeed the end result of the role played by the human capital in allowing for intrasectoral spilllovers. Furthermore, the results point to the need for a careful interpretation of the lack of any horizontal spillover evidence found in previous studies. The elusive horizontal spillovers seem to be the result of the lack of controlling for human capital's absorptive role in ensuring the realisation of these spillover effects. <

This article is based on The Role of Human Capital in Productivity Spillovers from FDI: an Empirical Analysis of Turkish Manufacturing Firms, by Seda Köymen (Bilkent University) and Selin Sayek (Bilkent University)

"We find human capital plays a significant role in allowing for horizontal spillovers to occur while playing no role in allowing for forward or backward spillovers to take place."

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GEP co-hosts major conference on China's future role

Many experts agree one corollary of the global financial crisis has been to make China's rise to superpower status even more certain. At the second International Forum for Contemporary Chinese Studies, co-hosted by GEP, delegates from around the world assessed the country's standing 60 years on from the founding of the PPC.

Some of the world's foremost authorities on China discussed the country's likely future as a global superpower at a prestigious conference co-organised by GEP in September.

Delegates gathered for the second International Forum for Contemporary Chinese Studies (IFCCS) ahead of the 60th anniversary of the founding of the People's Republic of China.

GEP co-hosted the conference – Beyond Revolution and Reforms: The People's Republic Looks Forward at 60 – with the University of Nottingham's School of Contemporary Chinese Studies.

With China looking back at six decades of Communist rule, during which it has transformed itself from "the sick man of Asia" to arguably the world's most important economic force, some 200 scholars from 20 nations assembled to weigh up the factors that will shape the country in the coming decades.

China is poised to overtake Japan as the world's second-largest economy and has been tipped to surpass the United States in 20 to 30 years.

Despite the global financial crisis, it posted a respectable economic growth rate of 7.1% in the first half of 2009 and looks set to meet its target of 8% for the whole year.

Yet with its rise come huge challenges both for China itself and the rest of the world.

A series of parallel sessions addressed 20 topics, including the sometimes fractious China-EU relationship, the unevenness of China's development and the Chinese government's energy and environment policies.

Professor Shujie Yao, co-ordinator of GEP's China and the World Economy programme and Head of the School of Contemporary Chinese Studies, hailed the forum a great success.

He said: "The aim was to promote cutting-edge research on contemporary China, providing institutions, established scholars, PhD students, policymakers and industry leaders worldwide with an important platform to exchange ideas. We certainly achieved that."

Delegates at the event, held at the University of Nottingham on 8 and 9 September, tackled questions including:

- What challenges does globalisation pose for China?
- Does China have a democratic future?
- How will online public opinion influence the way China is governed?

"The aim was to promote cutting-edge research on contemporary China, providing institutions, established scholars, PhD students, policymakers and industry leaders with an important platform to exchange ideas."

Keynote speakers included:

- Professor David Greenaway
  GEP founding Director and now Vice-Chancellor of the University of Nottingham
- Zhang Lirong
  Minister Counsellor of the Chinese Embassy in London
- Professor Keping Yu
  Author of Democracy Is a Good Thing

Lectures included:

- China's Globalisation Challenge
  Professor Peter Nolan, University of Cambridge
- China's Political Development Since the Reform
  Professor Keping Yu, Central Translation Bureau of China
- China: a Democratic Future?
  Dr Kerry Brown, Chatham House
- The Growing Influence of Online Public Opinion in China
  Duncan Hewitt, veteran China correspondent and author of Getting Rich First

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The conference reflected on China's "seemingly irreconcilable" images of economic success and gaping social disparities.

Professor Nolan, Director of the Chinese Big Business Programme at the University of Cambridge's Judge Business School, said China could make a "mighty" contribution towards a world faced with a "true Darwinian threat" in the aftermath of the financial crisis.

He argued that how China responds to the global business revolution will have a huge impact on international relations in the years to come, adding: "The period of wild capitalism is over.

"The world China has been engaging with – hesitatingly, cautiously, highly intelligently – for three decades is now going somewhere else. That is a very, very big point in the history of the modern world.

"The next few decades will be critical for the future of the human species before populations stabilise and before populations start to decline.

"The patterns of organisation – of our economy particularly – and the foundation of everything that evolves after this period of wild capitalism will be fundamental to our prospects as a species. So it is quite an important period for considering China and its relationship with the world."

Highlighting lingering concerns over population pressures, poverty, unemployment, environmental degradation and corruption, Mr Zhang told the conference China faces some "very severe challenges".

He said: "We, as Chinese, need to look at the weak side of China. Any achievements divided up by 1.3bn people are small achievements, but any problems multiplied by 1.3bn are huge problems.

"Foreigners often look at China as a whole, but the Chinese look more at averages. For, although China is now an emerging power with a GDP of 4.3trn US dollars, on average China's GDP per capita is only a fiftieth of that of the US."

Dr Brown also cautioned that the international community is demonstrating "astonishing complacency" in believing China's future development will progress smoothly.

He agreed China would be confronted by "unbelievable challenges" over the coming years and said the Chinese Communist Party is failing to address the key issues likely to threaten political stability over the course of the next decade.

"The Chinese model is to put systemic crises on hold until a sunny day when they can deal with them. I'm not sure there are too many sunny days left.

"There is no real political vision, no relaxed or systematic way of dealing with the public response to particular issues."

This, said Dr Brown, is the driving factor behind the exposure of official wrongdoing on the internet.

However, he identified "a ray of light", telling delegates: "A lively and meaningful debate about political reform is finally getting underway to discuss what kind of political structure will work over the next 10 to 15 years.

"There is a real desire for change, a real hunger for a proper system of governance within China. In their sixth decade of power, the CCP is just beginning to have the courage to confront it."

• Shujie Yao

"The Chinese people are the miracle-makers. The success of China depends on the hardworking nature of its people."

Professor Yao, in his closing address, said he was confident in the country's ability to tackle the problems and challenges it faces.

He said: "The Chinese people are the miracle-makers. The success of China depends on the hardworking nature of its people."

This was the second year of the conference. Next year's will be held at Nankai University, Tianjin, one of China's leading universities, following a memorandum of understanding to promote collaborative research between Nankai and the University of Nottingham. <

New GEP Research Papers

www.gep.org.uk/research_papers

Most of GEP's output continues to be published first through the GEP Research Papers Series. Papers are generally submitted to peer-reviewed journals in the wake of comment and feedback, featuring in publications including the Journal of International Economics, the European Economic Review and The Economic Journal.

2009/27

Tomohiko Inui, Richard Kneller, Toshiyuki Matsuura and Danny McGowan
Why are Multinationals 'Footloose'?

Multinational ownership often raises the probability a production plant will die. According to this study, this is attributable to multinationals closing small, low-capital-intensive and downstream plants.

2009/26

David Greenaway, Danny McGowan and Chris Milner
Country Trade Costs, Comparative Advantage and the Pattern of Trade: Multi-Country and Product Panel Evidence

This study investigates whether country trade costs affect comparative advantage. By examining industry export shares across countries and over time, it finds that trade costs should be considered "endowments" that present governments with opportunities to boost exports.

2009/25

Vincent Anesi and Udo Kreickemeier
Redistribution in the Open Economy: a Political Economy Approach

This paper develops a two-country model of international trade in which citizens who are heterogeneous with respect to their factor endowments vote over tariffs and income tax rates.

2009/24

Alexander Hijzen, Sébastien Jean and Thierry Mayer
The Effects at Home of Initiating Production Abroad: Evidence from Matched French Firms

Based on matching techniques in combination with a difference-in-difference estimator, this paper estimates the effects at home of initiating production abroad through the establishment of a foreign production affiliate. It finds that, contrary to popular perceptions, "offshoring" does not result in a net loss of jobs domestically.

2009/23

Hartmut Egger and Udo Kreickemeier
Worker-Specific Effects of Globalisation

In the model developed in this paper globalisation has worker-specific effects, which are tied to the productivity of the firms in which these workers are employed.

2009/22

Robert Anderton, Alessandro Galesi, Marco Lombardi and Filippo di Mauro
Key Elements of Global Inflation

This paper examines key factors affecting OECD inflation over a long sample period. It finds that, perhaps partly due to globalisation, various structural factors in addition to monetary policy might be behind changes in the inflation process.

2009/21

Markus Leibrecht and Christian Bellak
Does the Impact of Employment Protection Legislation on FDI Differ by Skill-Intensity of Sectors? An Empirical Investigation

This study suggest the deterrent effect of inflexible labour markets is predominantly given for industries with a high share of low-skilled workers. High exit costs due to strict employment protection therefore matter particularly for mobile industries.

2009/20

Sugata Marjit and Saibal Kar
Emigration, Wage Inequality and Vanishing Sectors

This paper investigates the effects of labour emigration from developing countries on wage inequality and finite changes in production.

2009/19

Chris Milner and Fangya Xu
On the Pollution Content of China's Trade: Clearing the Air?

This study compares alternative measures of the pollution content of China's trade. It finds China's exports on average embody less pollution content than its imports would if they were produced locally. However, its also finds China is a net exporter of embodied pollutants in terms of the actual production of exports and imports.

2009/18

Ziliang Deng, Adam Blake and Rod Falvey
Quantifying Foreign Direct Investment Productivity Spillovers: a Computable General Equilibrium Framework for China

This research constructs a static computable general equilibrium model to quantify the endogenous productivity spillovers from foreign-invested firms to domestic firms, taking the Chinese economy as a case study.

New GEP conference and lecture announcements

Conferences and public lectures have always been a crucial element of GEP's wider outreach strategy. One of the key purposes these events serve is to offer students the chance of genuine interaction with some of the most important figures in the sphere of economics.

Leverhulme Globalisation Lectures

Professor Alan Winters, Chief Economist, Department for International Development

27 January 2010

Martin Wolf, Associate Editor and Chief Economics Commentator, Financial Times

10 March 2010

Nottingham Lectures in International Economics

Professor James Rauch, UC San Diego

'Interpersonal Relationships in International Trade'

16, 17 and 18 February 2010

All events at Sir Clive Granger Building, University Park

Conference announcement and call for papers

The 9th Annual GEP Postgraduate Conference

University of Nottingham

29 and 30 April 2010

Deadline for submissions: 29 January 2010

Applications to toshihiro.atsumi@nottingham.ac.uk

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GEP's core of Internal Research Fellows allows it to retain its respected standing as one of the largest clusters of academics anywhere in the world studying the economic aspects of globalisation. This core is backed up by a global network of External Research Fellows and Policy Associates.

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The Globalisation and Economic Policy Centre

GEP – the Globalisation and Economic Policy Centre – is the major centre in Europe studying the impacts of globalisation and economic policy. One of the biggest of its kind in the world, the Centre has an impressive international reputation. Its academics have advised organisations including the Treasury, the OECD, the World Bank and the WTO.

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

- Theory and Methods
- Globalisation and Labour Markets
- Globalisation, Productivity and Technology
- China and the World Economy

GEP supports both basic scientific and policy-focused research. Its core staff comprises a group of Research Fellows based at Nottingham; a network of External Fellows from a number of universities in Western Europe, North America and Australia; and a forum of Policy Associates based in the policymaking community.

GEP publishes its own Research Papers Series, sponsors regular conferences and workshop programmes and supports a range of other outreach activities.

For more information visit www.gep.org.uk.

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