

CONTENTS

page

DIRECTOR'S REPORT

2

NIESR in the news

4

RESEARCH IN 2007

Risk premia and banking crises *by Ray Barrell*

6

Bivariate forecasts of inflation and output growth *by James Mitchell*

7

International productivity comparisons at sector level *by Geoff Mason*

8

Growth in Germany, France and the United Kingdom *by Dawn Holland*

9

Worker effort and productivity across the week *by John Forth*

10

Value for money of pre-school childcare and education *by David Wilkinson*

11

Mobility of apprentices and trainees *by Heather Rolfe*

12

Adult literacy and numeracy: evaluating skills for life *by Hilary Metcalf*

13

The business benefits of equal opportunities practices *by Rebecca Riley*

14

What difference do ACAS activities make to the economy? *by Pamela Meadows*

15

Optimal design of means tested retirement benefits *by Justin van de Ven*

16

Estimation of healthy life expectancy *by Martin Weale*

17

PUBLICISING INSTITUTE RESEARCH

National Institute Economic Review

18

National Institute Discussion Papers and Monthly GDP

19

Other published reports and articles

20

Papers presented

22

Our events programme 2007

24

SUPPORTERS OF THE INSTITUTE

26

FINANCIAL SUMMARY

27

PEOPLE AT THE INSTITUTE

Institute governors

28

Institute staff and visitors

29

DIRECTOR'S REPORT

After three years with deficits, the Institute is showing a surplus for the year reported here and we anticipate another surplus for the financial year 2007–8. As a charity we expect to run deficits from time to time. We do not regard these movements as being of great importance provided that we succeed in covering our costs taking one year with another.

I am pleased to report that this year the National Institute has, with the Institute of Education, been awarded an ESRC Centre Grant for work on life-long learning. The grant is for five years work in the first instance. The work at the Institute will focus on adult skills and the link between high-level skills and technical progress and begins in January 2008. I am keen to congratulate Geoff Mason, who led the National Institute's contribution to the bid and whose standing in the area made the National Institute's involvement in this Centre possible.

I have been keen to increase the share of Research Council funding which inevitably shrank with the ending of Research Council support for research linked to macroeconomic modelling. The Centre grant obviously helps with this. There are nevertheless limits to what is possible. The ESRC pays only 80% of allowable costs, with a structure which favours the employment of junior researchers over senior researchers. In universities, which also receive Higher Education Funding Council support, this is not a problem, but at the National Institute, since we have to cover the costs of senior researchers without extra help, it imposes an obvious constraint. For the time being I am content to suggest to our Council of Management that a small loss would be an acceptable outcome of increased Research Council funding since the overall financial position of the Institute is good. However a second problem is highlighted by the overall success rates. Those, particularly for research proposals for more than £100,000, are low at present and may fall further with the additional strain on ESRC resources as a result of the recent introduction of full economic

costing. Although proposals from the National Institute seem to be more successful than the national average, the costs of writing research applications are substantial; this is an obvious deterrent when the chances of success are low.

Our macroeconomic model is gaining in international importance and is now being used by a major international organisation in its analysis. The demand is helped by the fact that it is the only macroeconomic model produced by a research organisation which is made available to subscribers. Given our user network, we always have to have a model which produces coherent forecasts and projections every quarter. This has meant that it is not always wise to implement immediately all of the latest theoretical developments in the subject; nevertheless we are confident that we remain technically ahead of other more commercial producers of economic models in terms of the assumptions we can allow our users to make. The most important of these is that people's expectations are forward-looking, and based on what the model predicts will happen instead of being the average of past experience. But the requirements imposed by a client base have given our product a robustness which seems to be increasingly valued. This probably explains why we have recently seen an expansion in the use of our model by blue-chip institutions making and analysing macroeconomic policy.

The impact of the National Institute on the policy environment remains substantial. Its macroeconomic model is only one of the means by which it influences this. Press coverage of our forecasts has declined, but the policy issues we discuss at the same time as the forecast continue to excite considerable interest and we continue to contribute on topical issues on which we feel well-informed. Over the past year the most lively issue in which the National Institute became involved arose over immigration numbers, one of measurement rather than policy. This brought an article in our October 2006 *National Institute*

Economic Review to renewed prominence since that appeared to provide numbers close to recently-revised official estimates. Nevertheless, the differences in the various estimates are probably questions of definition rather than calculation. Much confusion would be avoided if producers of official data made readily available the precise methods by which these data are computed.

Other policy involvement has come through giving evidence to select committees of both Houses of Parliament. In addition to giving evidence on the Budget and Pre-budget Report, institute staff gave evidence to enquiries on immigration and on the performance of the Bank of England over the ten years since it became independent. With unfortunate prescience our evidence on the latter, given in the Spring of this year, suggested that, both nationally and internationally, not enough attention had been paid to how the regulatory system would cope with a financial crisis.

Obviously any organisation is exposed to risk and the National Institute conducts a systematic assessment of the risks that it faces. There are two substantial risks; the first is that the funding sources on which the Institute relies may dry up. In fact the pattern of support for the Institute has changed substantially over the years and there is every reason to think that we will continue to adapt to changes in the environment. Diversity of funding sources provides short-term protection. The other risk we face is personnel risk. Inevitably staff do leave, and we try to manage the consequences of this by ensuring that the Institute employs people at different stages of their careers so that we always have people who are broadening their roles.

The work summarised in this report would not, of course, have been possible without the support and cooperation of a large number of organisations and individuals. Financial support,

received from our research sponsors and also from our corporate members, is greatly appreciated. Without it we obviously could not function. So too is the support from those individuals and organisations with whom we cooperate in our research. In a small organisation the stimulus provided by working with a range of outside researchers is extremely valuable. Finally I should thank the Institute's Trustees, who are the members of its Council of Management, for the work they put in on the Institute's behalf and the support they provide both to me personally and to the National Institute as a whole.



Chris Giles, Economics Editor of the Financial Times.

Be brave, prime minister, and tax property

Martin Weale

The Financial Times, 27 July

“With the housing green paper, the government has at last recognised that an important factor behind Britain’s high house prices is a lack of supply. It is less clear that it has grasped the fact that high house prices are supported by the twin pressures of supply and demand. A coherent policy would address both blades of the scissors.

Perhaps, just as it was possible to build a bipartisan consensus for the abolition of mortgage tax relief, so all political parties will come to see that the imbalance that has developed from doing nothing is harmful to the economy.”

Think-tank warns that Bank risks overkill in fight against inflation

Gary Duncan, Gabriel Rozenberg, Christine Seib

The Times, 27 July

July’s fifth rate rise in base rates in less than a year was probably itself unnecessary for the Bank’s Monetary Policy Committee to bring consumer price inflation back to its 2 per cent target, and the MPC will be acting with excessive aggression if it goes still further, the National Institute of Economic and Social Research says.

Ray Barrell, the institute’s senior research fellow, said: “The Bank has got to be careful not to keep on worrying that inflation is not coming down enough, and not be frightened of the markets expecting a rise.

“The last rate rise we saw was perhaps unnecessary [although] it’s not going to do too much damage.”

Northern Rock: Expert Views

Martin Weale

BBC News, 17 September

The economic expansion of the last ten years has been underpinned by rising house prices.

“Even without the crisis there was every reason to think that next year the economy would grow slower than this year.

The crisis is likely to lead to higher saving and may lead to growth markedly below trend.

As the cheap credit bubble of the last few years there is a risk that financial services will contract particularly rapidly. The next couple of years are unlikely to be boring.”

Northern Rock: One in 10 chance of property crash

Edmund Conway, Harry Wallop

The Daily Telegraph, 19 September

Martin Weale, head of the National Institute for Economic Research, said that Northern Rock’s woes could be the “straw that breaks the camel’s back” and warned that there was a chance of sharp falls.

Mr Weale said: “Northern Rock may well be the trigger that shakes confidence. The market looks in a precarious position.

“It is creating a feeling that there is something wrong with the housing market – even though the two are not directly related. Demand is likely to falter.” He added that it was “perfectly possible for prices to fall”, comparing house prices with the rise in share prices during the dotcom boom.

Can the UK cope with more people? BBC News, 23 October

“The real question is what does it do to the incomes of people already in the country. Does it make us better or worse off? I should have thought that the effect is largely neutral, perhaps with a small potential gain.”

The Good Life? But what about all these taxes?**Heather Stewart****The Observer, 21 October**

“Essentially, we have had a sharp upsurge in wealth since the 1980s”. Consumers as a whole are holding more assets than economists would predict, given the amount they need to fund their retirement and normal levels of bequests. Weale calls this the ‘wealth puzzle’. Household wealth is now at its highest level relative to income since the 1950s, and he says it’s no surprise that the owners of those assets don’t much fancy paying tax on them.

‘I think what we see has a rather clear biological explanation: people would prefer to be supported by other people’s children in their old age, so that they can leave as much of their wealth as possible to their own children. What is more biologically natural than that?’

Report predicts wider budget deficit**Delphine Strauss****FT. com, 25 October**

Martin Weale, NIESR’s director, said the Treasury’s estimates were “far too optimistic” and appeared to be “a forecast driven by the need to meet the golden rule, rather than a forecast driven by what you actually expect to happen”.

“HM Treasury misses the point in arguing that the problems of Northern Rock do not have their roots in the debt economy . . . the house price boom has created a rising demand for mortgages and led to circumstances in which lenders . . . were able to expand rapidly through wholesale borrowing,” the report said.

No clue on migrants in UK**Graeme Wilson****The Sun, 31 October**

Last October, the independent National Institute put it [the immigration figure] at 1.2 million. Yet, despite this, the Government stuck to its original estimate of 800,000. Institute director Martin Weale said:

“Given the sensitivity of these [immigration] figures, I would have hoped they would have checked them more thoroughly”.

Why didn’t anyone say Rock ready to erupt?**Martin Weale****The Daily Telegraph, 30 October**

“The current split is a direct consequence of Treasury policy. Until 1997, the Bank of England had been responsible for regulating banks. It is widely believed that the Treasury thought it would bail banks out all too readily and therefore transferred responsibility to the FSA, a move which brought the then-governor, Eddie George, close to resignation.”

“The crisis has shown that a much closer partnership between the FSA and the Bank is needed; at the very least the FSA must have the authority and indeed the obligation to share confidential information it obtains when looking at banks’ affairs with the Bank of England.”

“While both the Bank and the FSA can be criticised for the reasons indicated above, there are also questions for the ministers responsible in the Treasury.”

“We have to remember that, compared with many banking crises, Northern Rock barely registers as a tremor.”

“An institutional structure which had such difficulty with Northern Rock is badly designed.”

Better migration data needed for the UK**Martin Weale****The Daily Telegraph, 1 November**

“The Department of Work and Pensions has announced that, instead of 800,000 foreign-born nationals taking up work in the United Kingdom since 1997, the correct figure is 1.1 million. Statistics cannot be delivered on a shoe-string. Since the government is concerned about migration and its possible consequences it needs to put greater effort and more money into measuring the population.”

RISK PREMIA AND BANKING CRISES

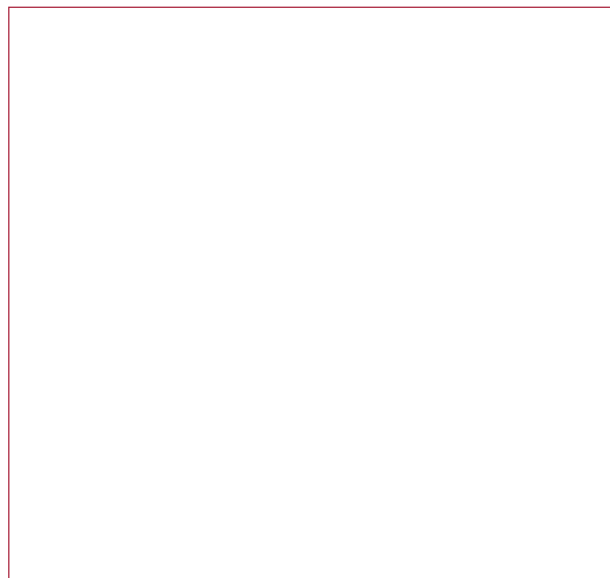
The world economy has been growing strongly with stable inflation for the past few years, and this is in part because of well designed policies. However, it has also reflected good luck, and the optimism generated by success appears to have sowed the seeds for a potential slowdown in activity. In February 2007 Ray Barrell was asked by the Treasury Select Committee whether the new monetary arrangements introduced in 1997 were very successful, and replied that as they had not been tested by a severe shock, such as a banking crisis, they could only be judged as successful.^a It was suggested that financial liberalisation and the associated rise in borrowing has probably made the banking system more vulnerable to crises. The new arrangements were tested by the global financial problems emanating from the US in the summer, and especially by the bank run on Northern Rock. They were clearly not very successful at dealing with these events, and need restructuring.

Barrell and Davis (2007)^b suggest that financial liberalisation has changed consumer behaviour. They show that savings have been reduced by liberalisation in France, Canada and Sweden as well as the UK and the US. However, there appear to be no effects in Germany, and the banking crisis of the 1990s in Japan caused savings to rise. In the first five of these countries borrowing has risen as a per cent of income in the past decade. Easier lending is associated with the origins of banking crises.

There may be problems with the architecture of British and European banking regulation. There is a European Single Market for banks but bank regulation is a country responsibility. In such an environment banking crises are hard to deal with. They are not rare events, as Barrell and Holland showed in the October 2007 Review. There were 6 amongst the 18 European economies between 1980 and 1999, and those in Sweden and Finland in the

^aSee House of Commons Treasury Committee, *The Monetary Policy Committee of the Bank of England: ten years on*. HC 299–I Ev 104 – Ev 115. ^bBarrell, R. and Davis, E. (2007), 'Financial liberalisation, consumption and wealth effects in 7 OECD countries', *Scottish Journal of Political Economy*, June.

GDP growth and the 1991 banking crisis



early 1990s had major effects on output, as we can see from the figure above.

When banking crises arrive there are major increases in the spread between borrowing and lending rates faced by firms and consumers, and investment and consumption are held back. Barrell and Holland produced an index of vulnerability to increases in spreads based on the proportion of floating rate debt and the scale of personal sector debts. They showed that the significant increase in borrowing in Spain and Ireland over the past ten years, along with high levels of floating rate debt, made them more vulnerable in crises than the UK, but that the UK is the most vulnerable amongst the seven major economies.

The Institute model, NiGEM, has proved a useful tool for analysing the effects of credit crises. The impacts were analysed in reports for the European Commission, in work for the IMF, the Bundesbank and the Bank of England, and user courses on crises took place in September, October and November.

This work was undertaken by Ray Barrell, Dawn Holland and Philip Davis. Enquiries to r.barrell@niesr.ac.uk.

BIVARIATE FORECASTS OF INFLATION AND OUTPUT GROWTH

Forecasts of both inflation and output growth are central to monetary policy in countries which target inflation. Increasingly these forecasts are presented as density forecasts. However, although we should expect a relationship between inflation and output growth forecast errors, driven for example by supply and demand shocks, traditionally density forecasts of inflation and output growth are published separately. This project suggested the use of copula functions to back-out the implicit bivariate density forecast for inflation and output growth from the known marginal densities.

Each quarter the Survey of Professional Forecasters (SPF) in the US and central banks, such as the Bank of England, publish density forecasts for inflation and output growth but without any obvious indication, certainly that is available in the public domain, of how these two forecasts are related.

Nevertheless, it would be valuable to examine inflation forecast uncertainty conditional on a given forecasted level of output growth and *vice versa*. Knowledge of the underlying bivariate density would also facilitate evaluation of policy rules simultaneously with respect to their performance against the inflation target and any output growth target. It is also of interest to compute the probabilities of joint events, such as inflation being on target and output growth above trend. Only when the marginal density forecasts for inflation and output growth are independent should we compute joint probabilities by simply taking the product of the two marginal probabilities.

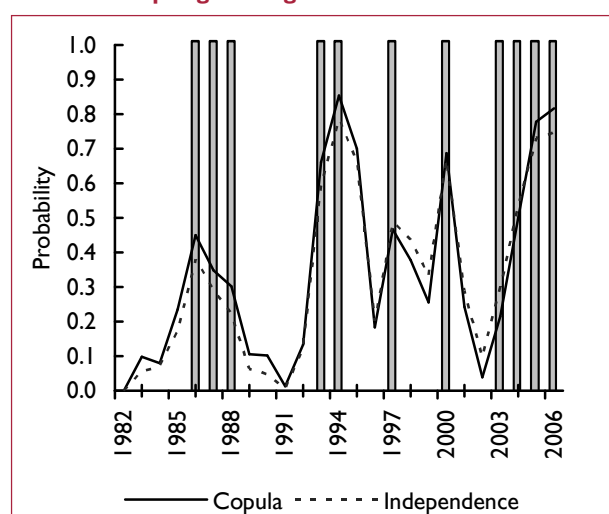
But while multivariate density forecasts, that allow for cross-variable interactions, conceptually provide a full characterisation of the dependence, in many practical situations, as indicated, we do not know the form of the multivariate density. Often the multivariate model underlying the forecasts is unknown – indeed it may not exist. Central banks, for example, tend to exploit a suite

This research was undertaken by James Mitchell for the ESRC. Enquiries to j.mitchell@niesr.ac.uk.

of models whose forecasts they then combine. They also routinely employ judgement to adjust their density forecasts.

This project considered the use of copula functions to characterise the dependence between known density forecasts for inflation and output growth. In an application to the SPF we found, as illustrated in the figure, that there is a loss, albeit small, in forecast accuracy when the dependence is ignored. We also found that the dependence between the SPF's density forecasts of inflation and output growth is negative and statistically significant. This suggests that supply shocks dominated over the period 1982–2006. It also implies that higher expectations of output growth will dampen conditional mean forecasts of inflation if, as is common, forecasters look to the past, to some degree, when forming their *ex ante* bivariate density forecasts.

Joint probability forecasts of inflation in the range 1.5–3.5% and output growth greater than 2.5%



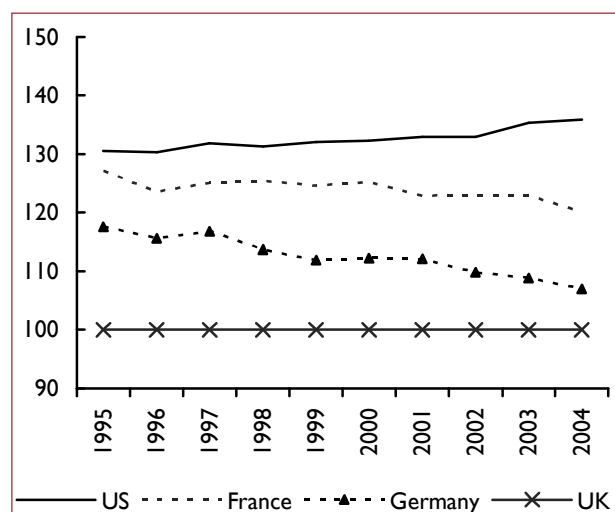
Note: The bars are binary indicators equal to unity when the event, measured using the second vintage data, subsequently occurred. Probability event forecasts implied by the SPF inflation and output growth marginal densities are presented assuming (i) a normal copula with negative correlation of 0.55 and (ii) independence.

INTERNATIONAL PRODUCTIVITY COMPARISONS AT SECTOR LEVEL

Recent productivity comparisons carried out at NIESR show that UK labour productivity growth in market sectors substantially improved relative to France and Germany between 1995–2004 but fell short of matching US productivity growth rates at a time of rapid improvement in US performance. At the end of this period the gaps in average labour productivity (ALP) levels between the UK and these other countries in total market sectors remained sizeable. On a measure of average output per worker-hour, the US was an estimated 33% ahead of the UK in 2002, while France was 23% ahead and Germany 10% ahead.

Growth accounting estimates suggest that the main factors underpinning the US and French leads in ALP levels are higher levels of physical capital-intensity (average capital per hour worked) combined with higher levels of total factor productivity (TFP) – a measure which captures, among other things, inter-country differences in the efficiency with which production inputs are utilised. By contrast, in the German-UK comparison, the German lead on ALP levels is almost wholly explained by higher physical capital intensity with a smaller contribution made by higher skills in Germany. The UK is now ahead of Germany on TFP at

Average labour productivity levels per worker-hour, total market sectors, 2002 (Index numbers: UK=100)



Source: NIESR estimates

aggregate market sector level suggesting that, while Germany benefits relative to the UK from its accumulated advantages in capital stocks and skills, the UK gains from more efficient use of its capital equipment and skilled labour. However, the UK still pays a penalty in ALP terms for having accumulated lower levels of physical capital and skills over time.

In spite of the improvement in the UK's productivity performance relative to France and Germany between 1995–2004, the UK lost some ground in terms of unit labour cost competitiveness against both these countries during this period and also fell back in competitiveness relative to the US. This was partly due to faster growth in nominal labour costs in the UK and partly due to unfavourable movements in market exchange rates.

The project covered all sectors within the 'market economy', that is, excluding only public administration, health, education and also real estate activities and residential buildings. Much of the analysis was carried out at three-digit level according to the Standard Industrial Classification, a more disaggregated level of analysis than has hitherto been attempted. This enabled sectors where the UK performs relatively well to be distinguished from the broad mass of sectors where UK labour productivity is lagging. For example, the UK was found to compare favourably on ALP against one or more of the US, France and Germany in a number of sub-sectors of food manufacturing, printing and publishing, utilities, construction, transport services, financial services and business services.

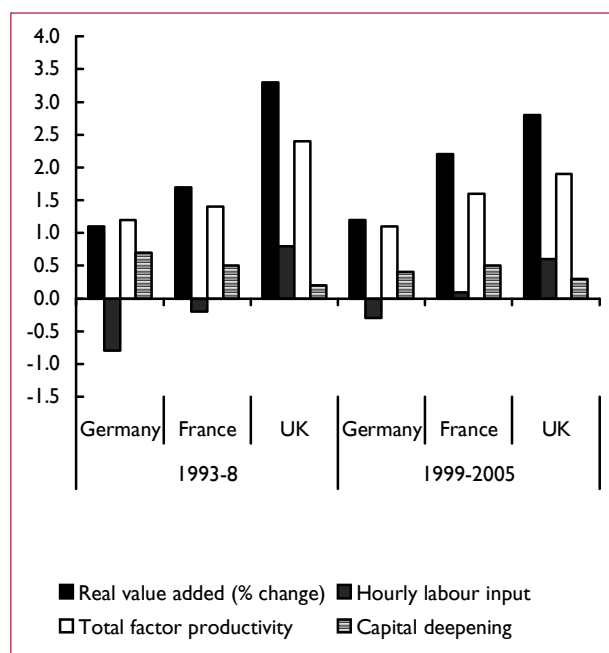
This research was carried out by Geoff Mason, Brigid O'Leary, Mary O'Mahony and Kate Robinson. It was supported by the Department of Business, Enterprise and Regulatory Reform (DBERR). Enquiries to G.Mason@niesr.ac.uk.

GROWTH IN GERMANY, FRANCE AND THE UNITED KINGDOM

1 January 1993 marked the full establishment of the European Common Market and the completion of a process of gradual economic integration between the European Union states. During the twelve years leading to 1993, average real GDP growth in the three largest EU economies, Germany, France and the United Kingdom, was remarkably similar at around 2.1–2.5% p.a. From 1993, however, and contrary to expectations, their real GDP growth rates diverged. Between 1993 and 2005, average annual growth in the United Kingdom accelerated to 2.9%, while in Germany it slowed to 1.3% and French growth averaged 2.0% p.a. After the completion of Monetary Union the average growth differential between Germany and France widened, with German real GDP rising annually by 1.1% on average from 1999 to 2005, compared with 2.2% for France. Since 2005, however, restructuring and labour market reform have improved the outlook for Germany relative to France, and we expect growth rates of these two economies to converge more closely together. The UK is expected to continue to outpace the other two economies, largely stemming from a stronger outlook for labour input.

Germany's weak growth from 1993 largely reflected the aftermath of the unification shock and a long period of restructuring with a persistent fall in labour input. This was exacerbated by demographic developments, as an ageing population has seen the working age population decline steadily since the mid-1990s. There is little evidence that Monetary Union was detrimental to German growth. After EMU, the performance of German manufacturing improved, relative to both France and the United Kingdom, and the volatility of both the real exchange rate and real long rates declined. In fact, the stronger performance of France relative to Germany since 1999 is confined to non-tradable sectors. Economic growth in Germany failed to recover partly because of a decline in capital deepening, as investment in dwellings declined for five consecutive years, reflecting a marked difference in housing market

Growth decomposition (percentage point contribution to growth)



Note: net of depreciation

developments in Germany compared with France and the United Kingdom. At the same time there was a sharp slowdown in knowledge accumulation relative to the early to mid-1990s, and this seems to have been associated with a slowdown in productivity growth.

Weak growth in labour input can also explain much of the observed differential between GDP growth in France and the UK since 1993, partly reflecting the more flexible British labour market. An analysis of growth by sector suggests that structural factors are the dominant source of increased heterogeneity between the three largest EU economies. These factors include the faster development of the British finance and business services sector linked to the use of ICT, which has been implemented at a faster pace in the UK than elsewhere.

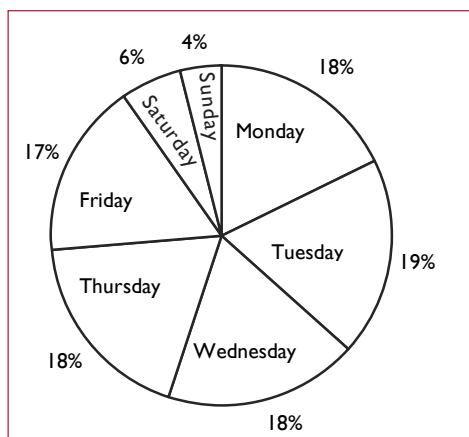
This research was undertaken by Ray Barrell, Catherine Guillemineau and Dawn Holland. Enquiries to r.barrell@niesr.ac.uk.

WORKER EFFORT AND PRODUCTIVITY ACROSS THE WEEK

Despite much debate about the productivity effects of flexible working and the regulation of working hours, little attention is paid to temporal variance in worker effort or productivity. Research conducted at NIESR (together with the Policy Studies Institute) employed data from the Time Use Survey to examine how labour inputs vary across the week. The study also reviewed existing evidence on day-of-week productivity effects.

Diary-based data – in which people record how they use their time – show that those in employment are most likely to be at work, and tend to work the longest days, in the middle of the week. Around three-quarters of job holders tend to be at work on the average weekday, compared with one third on the average Saturday and one quarter on the average Sunday. If one then considers the distribution of hours worked in the economy across the week, Tuesday accounts for the largest share (19% of all hours worked), while Saturday and Sunday account for the lowest shares of all (6% and 4% respectively) (see figure). This pattern varies considerably by industry sector. Weekends account for a relatively large share of total working time in sectors such as ‘Hotels and restaurants’ (20%) and ‘Retail’ (18%), but a relatively small share in sectors such as ‘Financial intermediation’, ‘Other business services’ and ‘Education’ (each 5%).

Distribution of working time across days of the week



Source: UK Time Use Survey 2000

The research was undertaken in collaboration with Alex Bryson (Policy Studies Institute) and funded by the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA). The full review is available at: <http://www.rsa.org.uk/projects/publications.asp>. Enquiries to: j.forth@niesr.ac.uk

It is more difficult to measure the effort that workers put into their jobs or the output that they produce each day, and so the direct evidence on variance in labour productivity by days of the week is extremely limited. The small body of existing research – much of which is dated and which commonly relies on observation of single work-sites or industries – tends to suggest that the output of individual workers reaches a peak in mid-week and tails off toward the weekend. Such variations can plausibly be explained by reference to ‘practice efficiency’ – whereby the rate of output climbs in the first part of the week as the worker gets more efficient at their task – and fatigue – with the accumulation of work tiring the worker and causing a drop in output by Friday. However, there is also a third countervailing factor – the ‘end spurt’ – whereby workers increase their effort just prior to a break or rest. This spurt may be particularly pronounced for piece-rate workers as they approach the end of the period over which output is measured.

In practice, whilst there may be certain times in the week that are most productive for the average worker, this optimal time point is certain to vary across individuals depending upon their personal and job characteristics. More research is therefore needed to examine these variations. However, the review suggests that productivity gains may be attainable if both employers and employees are encouraged to take a more creative and collaborative approach to the question of work scheduling over the week and to engage in more active discussion about how work can be scheduled in ways that maximise output.

VALUE FOR MONEY OF PRE-SCHOOL CHILDCARE AND EDUCATION

The role of the third sector in the delivery of public services is coming under increasing scrutiny. The Office for National Statistics Quality Measurement Framework project seeks to measure quality and value in such services. Within this project we look at the quality and value of pre-school childcare and education.

This research was undertaken by Lucy Stokes and David Wilkinson on behalf of the Office for National Statistics. Enquiries to d.wilkinson@niesr.ac.uk.

Government spending on early years services has increased fourfold in the last decade, such that all three and four year-olds in England are now guaranteed a free early education place consisting of five two and a half hour sessions per week, for 38 weeks per year.

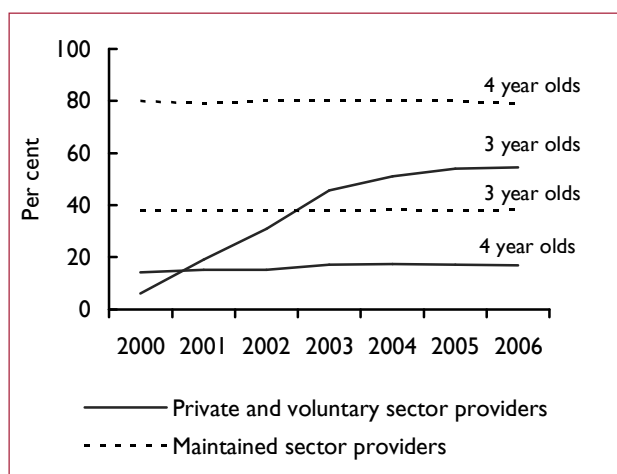
There is a wide mix of providers offering these services from nursery classes in primary schools to a plethora of private and voluntary organisations. The majority of this free education is provided by the maintained sector, but since 2000 there have been significant changes, particularly in free education for three year-olds.

Free places for four year-olds were well established by 2000, with roughly 80% of places in nursery or primary schools and less than 20% in private and voluntary organisations. However, for three year-olds the provision of free places

expanded after extensive piloting. This expansion has occurred almost exclusively through private and voluntary sector providers, such that by 2006 more than half of children received free education in these sectors compared with just 6% in 2000. Maintained sector provision remained stable at 38%.

Early years' education is important for child development, both in terms of cognitive development as well as social and behavioural skills. However, there is limited evidence about the effectiveness and cost effectiveness of pre-school provision by sector of provider. Future work will examine the role of sector of provision in early years care and education, and will make an attempt to measure the cost effectiveness of providers in order to give an indication of whether overall performance of the sector might be enhanced, or costs reduced, by changing the balance between state and third sector provision.

Percentage of three and four year old population benefiting from some free early education, by type of provider, 2000–6



MOBILITY OF APPRENTICES AND TRAINEES

The major barriers to movement of European citizens have been removed and for many years now programmes such as Leonardo da Vinci have assisted mobility of students and trainees. Despite these measures, the proportion of people undertaking a placement abroad remains small. To investigate reasons for this, the European Commission funded research to investigate barriers to mobility and measures to assist greater movement of participants in initial vocational education and training (IVET). These included the 'MoVE-iT' study: a detailed investigation of barriers to transnational mobility. As part of this, NIESR was invited to conduct a case study on the chemical industry.

The case study was designed to assist in identifying factors which promote or discourage movement and to develop solutions to facilitate mobility among apprentices and trainees. It did not collect quantitative data on mobility but used qualitative methods to explore benefits and barriers. Methods included interviews with selected stakeholders, involving employers, training organisations and a small number of trainees and employees.

FINDINGS

The research found only limited mobility of apprentices and trainees in the industry. Mobility schemes were found to involve graduates and senior employees rather than non-graduate trainees and apprentices. One major barrier was the cost of mobility programmes, combined with scepticism about the benefits to non-graduate trainees. The broader perspective gained through mobility was seen as of limited relevance to non-graduates: employers and training providers emphasised the importance of site-knowledge and specific rather than flexible skills for these trainees. However, where mobility was practiced for apprentices and trainees, this wider experience was found to be a valuable addition to training, resulting in an appreciation of alternative ways of working and different organisational cultures.

The case study also found an assumption among some employers and training providers that apprentices and trainees are not interested in mobility. This assumption may not be accurate. The chemical industry has experienced difficulties in recruitment and is not seen as an employer of choice. The opportunity to travel as part of training might enhance the appeal of the industry to potential recruits. Such opportunities might also improve the industry's image and profile more generally, bringing wider business benefits.

The case study highlighted a number of ways in which current practice might be improved:

Measures to encourage mobility of apprentices and trainees

- Improved access to existing information on mobility programmes for employers, training providers and apprentices and trainees.
- Dissemination of examples of successful mobility schemes in the chemical industry and associated industries.
- Reports from non-graduate 'ambassadors' who have taken part in mobility programmes.
- Measures to ensure health and safety standards, to provide reassurance that apprentices and trainees are not at risk.
- Training to be quality-assured to ensure that participants gain maximum benefit from the experience.

This research was undertaken by Heather Rolfe and the case study paper has been published on the 'MoVE-iT' website. Enquiries to h.rolfe@niesr.ac.uk.

ADULT LITERACY AND NUMERACY: EVALUATING SKILLS FOR LIFE

In response to the government-sponsored 1999 Moser Enquiry, which found that around one in five adults had severe difficulties with literacy or numeracy, the government established the Skills for Life strategy to improve literacy, numeracy and communication skills amongst adults. NIESR has been evaluating the benefits of college-based literacy and numeracy courses provided under the strategy.

The research, using a longitudinal, matched-comparison group design, provides, for the first time, a robust evaluation of the employment effects of basic skills training for adults. The approach minimised the likelihood of reporting outcomes that were not genuinely the result of having done the literacy or numeracy training.

The evaluation found that the *Skills for Life* courses increased subsequent participation in education and training. Basic skills course participants were much more likely to take part in further courses. They were also much more likely to gain qualifications and their self-esteem improved. However, after three years, employment rates and earnings were unaffected. It was unclear whether this was because *Skills for Life* had no effect on employment or because it took more than three years for the effects to work through into employment. The increase in participation in subsequent courses and in

qualifications may be taken to indicate that, for adults lacking basic skills, the route to improved employment may be a long one. On the other hand, it may be that the education and training received by *Skills for Life* participants does not translate into better employment, but that participants are ‘serial course attenders’. There is evidence to support both hypotheses.

Qualitative research identified other possible benefits for adults, particularly those with very low basic skills. These included: a fuller life (e.g. travelling unaccompanied, budgeting and managing one’s own finances, going shopping); reduced dependency, releasing others (including social services) from providing support; improved socialisation, reducing isolation; and improved mental health. These findings indicate the importance of using a wide range of outcomes to measure the impact of government programmes.

This research was undertaken by Hilary Metcalf, Pamela Meadows, Heather Rolfe and Amar Dhudwar, in collaboration with BMRB. It was funded by the Department for Education and Skills (now the Department for Innovation, Universities and Skills). Enquiries to h.metcalf@niesr.ac.uk.

Skills for Life evaluation: selected outcomes after three years, adults

	Change Wave 1 to Wave 4		Difference	Significance
	Learners value	Non-learners value		
Net increase in % of sample employed	6.7%	5.0%	1.7%	
Change in take home pay (non-employed = 0)	£560	£542	£27	
Change in self-esteem (scale -25 to +25)	0.66	-0.52	1.18	**
Net change in % with improved self-esteem (proportion improving less proportion worsening)	13.0%	-5.1%	18.1%	*
Change in commitment to education and training (scale -16 to +16)	-0.24	-0.66	0.43	**
% who have taken a new course since Wave 1	77.7%	19.3%	58.3%	***
% gaining any qualification since Wave 1	76.4%	24.9%	51.5%	***
Net increase in % with improved literacy	68.7%	50.0%	18.6%	***
Net increase in % with improved numeracy	46.8%	32.1%	14.6%	**

Notes: * significant at 10% level ** significant at 5% level *** significant at 1% level

THE BUSINESS BENEFITS OF EQUAL OPPORTUNITIES PRACTICES

Policies and practices intended to promote equal opportunities may result in benefits for particular individuals and for society at large, by enhancing employment opportunities for those who might otherwise be discriminated against and by promoting social cohesion. A separate question is whether individual businesses benefit from implementing such practices.

The majority of British workplaces have a formal written policy on equal opportunities or managing diversity, but practices to support such policies are less common. According to the Workplace Employment Relations Survey 2004, 62 per cent of private sector workplaces have a formal equal opportunities policy, with the incidence greater in public sector and large private sector workplaces. Far fewer establishments review promotion procedures or relative pay rates to identify indirect discrimination – only 1 in 10 private sector workplaces. Family friendly practices are more common, promoting equal opportunities across gender, with more than 2 in 5 private sector workplaces providing special paid leave for family emergencies and with a little less than a quarter of private sector workplaces

This research is being undertaken by Hilary Metcalf and Rebecca Riley and is funded by the Department for Work and Pensions. Enquiries to h.metcalf@niesr.ac.uk or r.riley@niesr.ac.uk.

allowing employees to work at or from home during normal working hours.

How might such practices affect standard measures of business performance such as productivity and profits? Theory suggests that the relationship between equal opportunities practices and business outcomes is likely to be complex and dependent on circumstance. Looking at the correlations in the WERS 2004 data (see table) there appears to be no systematic correlation between equal opportunities policies and practices and reported productivity or profits, enforcing the view that the relationship is likely to depend on a number of factors. Based on further analysis we find that the evidence in the data for either a large or widespread impact, positive or negative, of equal opportunities monitoring and reviewing practices on business productivity or profits is not strong. To the extent there are any positive effects our analysis suggests these are more likely to arise in larger establishments.

Differences in reported business performance between establishments with and without Equal Opportunities policies/practices

Policy or practice	Difference in proportion reporting above average:			
	Productivity Private sector workplaces	Profits Private sector workplaces	Productivity Private sector workplaces with 50 employees or more	Profits Private sector workplaces with 50 employees or more
<i>EO policies</i>				
The workplace, or the organisation of which it is a part, has a formal written policy on equal opportunities or managing diversity	-0.112**	0.054	-0.023	0.121
<i>EO practices</i>				
Promotion procedures or relative pay rates are reviewed to identify indirect discrimination by gender, ethnic background, disability or age	-0.007	0.058	-0.028	0.104
The impacts of Equal Opportunities policies in the workplace are measured	-0.039	0.066	0.014	0.120*
<i>EO practices concerning ethnic background</i>				
Recruitment or promotion procedures or relative pay rates are reviewed to identify indirect discrimination by ethnic background	0.013	0.134*	0.040	0.109*
<i>Family friendly practices</i>				
For some employees working time arrangements include working at or from home in normal working hours	0.100**	0.005	-0.038	-0.017
Time off for family emergencies is usually taken as special paid leave	0.062	0.043	-0.086*	0.009
Time off for childcare is usually taken as special or paid parental leave (other than maternity & paternity leave and emergency leave)	-0.090*	0.059	-0.010	0.095

Source: Workplace Employment Relations Survey 2004. Notes: ** indicates statistically significant at the 5% level; * indicates statistically significant at the 10% level; Point estimates and standard errors take into survey weighting.

WHAT DIFFERENCE DO ACAS ACTIVITIES MAKE TO THE ECONOMY?

Acas was established in 1976 as a statutory body with the remit to promote the improvement of employment relations in Britain. Its governing council comprises representatives of employers and employees together with independent experts. Acas seeks to provide impartial information and advice on employment matters; improve the understanding of effective employment relationships; prevent and resolve collective employment disputes; resolve disputes over individual employment rights and promote diversity in the workplace.

Acas seeks either to prevent conflict in the workplace or to help to resolve disputes, both individual and collective, which arise as a result of those conflicts. The Institute was asked by Acas to try and identify the economic impact of its activities. Although it is likely that successful intervention to reduce workplace conflict would lead to higher output and productivity in the longer term, the project did not attempt to measure this. Instead it focused on the more limited immediate short-term impact of Acas activities in 2005/6 on the employers and employees involved, and on other organisations and individuals facing potential disruption.

The study looked at six key areas of Acas activity – collective and individual conciliation, workplace projects, the Acas helpline, the website and publications, and open access training aimed at small and medium-sized organisations. In these areas there was evidence of the scale of the impact

The study was undertaken by Pamela Meadows, who has a long-standing background in the economics of the labour market. Enquiries to p.meadows@niesr.ac.uk.

either from participant feedback, or from independent surveys. The identified net benefits of these activities, which account for around three-quarters of Acas expenditure, amount to around £790 million in the first year. Total expenditure (including activities not covered by the study) was £49 million, giving a benefit/cost ratio of 16.

For employers the main benefit of Acas activities comes in the form of reduced management time dealing with conflict, lower recruitment costs and lower rates of absenteeism. For employees the main benefit comes from avoiding earnings losses. In the short term, there are some offsetting losses, notably for employment lawyers, although over a longer time scale these would disappear as the economy adjusts. In the case of collective conciliation where a strike is planned or in progress, most of the benefits accrue to businesses and individuals who would have faced losses or additional costs due to disruption.

Costs and direct and immediate benefits of Acas activities 2005/6

Acas activity	Net cost (£000s)	Net economic benefits (£000s)	Benefit/cost ratio
Individual conciliation	24,000	153,900	6.4
Acas Helpline	6,655	353,600	53.1
Website and publications	1,200	32,100	26.7
Collective conciliation	1,605	158,600	98.8
Workplace projects	1,290	71,300	55.3
Open access training	1,050	17,850	17.7
Other Acas expenditure not included	13,240		
Total	49,000	787,000	16.1

OPTIMAL DESIGN OF MEANS TESTED RETIREMENT BENEFITS

The work described here was presented at the conference organised by NIESR, hosted by the Bank of England and supported by the ESRC, to mark James Meade's centenary. Further details may be found in National Institute Discussion Paper no. 299.

In relation to the design of a redistributive tax and benefit system, Meade (1993)* suggested that particular care should be exercised to avoid distortions to the price of labour. To achieve this, Meade noted, redistribution must be undertaken with respect to non-labour income. Three approaches were suggested: a Property Owning Democracy (reduction of existing wealth inequality through effective redistribution); the Social Ownership of Property (the state takes possession of national assets by drawing down government debt); and a Welfare State (income from pay converted to income unrelated to pay through the imposition of taxes and benefits). In relation to the third of these alternatives, Meade (p. 94) suggested the provision of a tax-free Basic Income subject to a 50% withdrawal rate to limit the associated fiscal burden.

In contrast, one of the most important findings of the optimal tax literature (Atkinson and Stiglitz, 1976)* is that, in the absence of uncertainty, if household utility is separable in goods and leisure, then there is no welfare motive for the application of indirect taxation. This finding is important in relation to pensions design because a means test on retirement benefits can be interpreted as an intertemporal expenditure tax. Thus debate regarding the future of pensions policy in the UK now revolves about the recommendations made by the Pensions Commission, which limit the role played by means testing in the provision of benefits to the retired.

We have taken a fresh look at this debate. Our analysis is based upon an articulated rational agent model in which the lifetime is divided into annual increments from age 20 to 110, and households

are considered to choose their labour supply and consumption at each age as though they maximise expected lifetime utility, given their individual specific circumstances and their uncertainty about the future. Beginning with a stylised description of the UK tax and benefits system as it stood in 2003, we search over a class of redistributive systems that differ in the value of means tested retirement benefits, the rate of the benefits withdrawal, and a series of alternative tax adjustments that ensure budget neutrality. We compare the alternative tax and benefit counterfactuals with reference to their respective effects on the expected lifetime utility at the beginning of life, as implied by our rational agent model. On the basis of this analysis, we find that the preferred policy counterfactual from our considered alternatives implies extensive means testing of retirement benefits – expected lifetime utility is found to achieve a local maximum with a means tested benefit value of between 1.8 and 3.9 times that which was applied in 2003, and a withdrawal rate on private income of between 60 and 70%.

Our finding that some means testing is preferred on an expected lifetime utility basis under all of the alternative financing rules considered for analysis suggests that its long-term role in the provision of retirement benefits warrants further consideration. A second implication is an obvious, but all too often neglected point; decisions regarding pensions policy reform should take full account of how the required revenue is raised. Reforming the pensions system in isolation could lead to third best policy decisions.

*Meade, J.E. (1993, 'Can we learn a 'third way' from the Agathotopians?', in *Liberty, Equality and Efficiency*, New York, New York University Press.

Atkinson, A.B. and Stiglitz, J.E. (1976), 'The design of tax structure: direct versus indirect taxation', *Journal of Public Economics*, 6, pp. 55–75.

This research was undertaken by James Sefton and Justin van de Ven. Enquiries to j.vandeven@niesr.ac.uk.

ESTIMATION OF HEALTHY LIFE EXPECTANCY

It is well-known that life expectancy is rising sharply. Recently there have been substantial reductions in the mortality rates of old people. But, as people live longer, are they living more healthily or not? This study explored that question.

There are a number of surveys which ask people about their state of health. The Office for National Statistics uses the General Household Survey to compile estimates of healthy life expectancy based on the prevalence of various self-assessed health states. The problem with this approach is that the prevalence of good or poor health of old people may be the result of circumstances in the distant past which affected the health of that particular cohort but which are of no relevance to today's younger people. For example, people in their eighties may be in poor health because of injuries sustained in the Second World War. If this is the case, information on their health states is of no real relevance to the amount of time that people much younger can expect to spend in good health.

This study addressed the measurement of healthy life expectancy by using information from the British Household Panel Survey on health transitions. This makes it possible to assess, conditional on one state of health, the chance of moving into any other state of health. From the transition matrices which can be constructed, this makes it possible to construct expected time in any health state, conditional on the existing state of health.

There is a substantial problem which needs to be addressed. In principle the BHPS records the deaths of respondents. The risk of death can be modelled in much the same way as transition between health states. However, the death rates calculated from the survey are only about half of those calculated from the Registrar-General's data on mortality. Thus the transitions have to be adjusted so as to ensure that the death rates resulting from them are consistent, at each age,

This research was undertaken by Ehsan Khoman and Martin Weale and supported by the European Commission under the FP6 Programme. Enquiries to m.weale@niesr.ac.uk.

with the Registrar General's data. A framework for making this adjustment was developed as a part of the research.

The results from this are shown in the table below. They are striking not because they turn out to be substantially different from the official estimates but because they are so similar. Neither set of estimates suggests that the amount of time a sixty-five year old can expect to spend in healthy life has increased in line with overall life expectancy.

Life expectancy and healthy life expectancy at age 65

Year	Life expectancy at 65	Healthy life expectancy (ONS)	Healthy life expectancy (NIESR)
Women			
1992	17.9	13.0	14.2
2002	19.1	14.0	14.2
Men			
1992	14.2	10.9	11.4
2002	16.1	12.0	12.2

In line with our recent custom, each edition of the *Review* contained articles on a special theme. Articles which appeared during 2007 were as follows:

No. 199 (January)

Economic growth in Europe

Ray Barrell

Recent European economic growth: why can't it be like the golden Age?

Nicholas Crafts

An analysis of EU growth trends, with a particular focus on Germany, France, Italy and the UK

Kieran Mc Morrow and Werner Röger

Decomposing growth in France, Germany and the United Kingdom using growth accounting and production function approaches

Ray Barrell, Catherine Guillemineau and Dawn Holland

Rapidly rising energy prices – does the driver of the energy market imbalance matter?

Jared Bebee and Ben Hunt

No. 200 (April)

The importance of productivity

Mary O'Mahony

EU KLEMS growth and productivity accounts: an overview

Marcel P. Timmer, Mary O'Mahony and Bart van Ark

UK growth and productivity in an international perspective: evidence from EU KLEMS

Mary O'Mahony and Catherine Robinson

Spain: a success story shadowed only by a poor productivity performance

Matilde Mas and Javier Quesada

Neighbours in transition

Michael Peneder and Robert Stehrer

A new approach to measuring health system output and productivity

Adriana Castelli, Diana Dawson, Hugh Gravelle, Rowena Jacobs, Paul Kind, Pete Loveridge, Stephen Martin, Mary O'Mahony, Philip Stevens, Lucy Stokes, Andrew Street and Martin Weale

No. 201 (July)

Technology, jobs and skills

Rebecca Riley

Computers and pay

Francis Green, Alan Felstead, Duncan Gallie and Ying Zhou

ICT and the returns to schooling and job-specific experience

Simon Kirby and Rebecca Riley

Does offshoring reduce industry employment?

Alexander Hijzen and Paul Swaim

Human capital, job tasks and technology in East Germany after reunification

Alexandra Spitz-Oener

Internal versus external labour flexibility: the role of knowledge codification

Eve Caroli

No. 202 (October)

Active labour market policy

Rebecca Riley

Compulsion in active labour market programmes

Jan C. van Ours

The effect of Pathways to Work on labour market outcomes

Richard Dorsett

Cost-benefit analysis of psychological therapy

R. Layard, D. Clark, M. Knapp and G. Mayraz

Danish labour market activation policies

Jon Kvist and Lisbeth Pedersen

The Press Conference for the October Review.

NATIONAL INSTITUTE DISCUSSION PAPERS

Discussion papers exist to foster debate on Institute research. Recent papers listed below are available on our website www.niesr.ac.uk or free on request.

286. Qualitative expectational data as predictors of income and consumption growth: micro evidence from the British Household Panel Survey

J. Mitchell and M. Weale

287. The rationality and reliability of expectations reported by British households: micro evidence from the British Household Panel Survey

J. Mitchell and M. Weale

288. Workplace industrial relations in Britain, 1980–2004

D. Blanchflower, A. Bryson and J. Forth

289. Fiscal spillovers and trade relations in Europe

R. Barrell, D. Holland, I. Liadze and O. Pomerantz

290. Correcting US imbalances

R. Barrell, D. Holland and I. Hurst

291. The external returns to education: UK evidence using repeated cross-sections

S. Kirby and R. Riley

292. EU enlargement and migration: assessing the macroeconomic impacts

R. Barrell, R. Riley and J. Fitzgerald

293. Unemployment in Britain: some more questions

B. Henry and S. Kirby

294. Import growth, globalisation and the impact of trade liberalisation

R. Barrell, O. Pomerantz and I. Liadze

295. Globalisation and technology intensity as determinants of exports

R. Barrell and O. Pomerantz

296. Understanding revisions to density forecasts: an application to the Survey of Professional Forecasters

J. Mitchell

297. Constructing bivariate density forecasts of inflation and output growth using copulae: modelling dependence using the Survey of Professional Forecasters

J. Mitchell

298. Mobility of apprentices and trainees across the EU: case study of the chemical industry
Heather Rolfe

299. Utility maximising design of means tested retirement

J. Sefton and J. van de Ven

300. Notes on the Lisbon process – an analysis of the impacts of reaching the Lisbon targets for skills, R&D and the administrative burden in the European Union

R. Barrell and S. Kirby

301. A review of the economic impact of employment relations services delivered by Acas

P. Meadows

MONTHLY GDP

The National Institute publishes monthly and rolling quarterly estimates of UK GDP. Estimates of growth in calendar quarters are published about three weeks ahead of official data. Subscribers are notified of the estimates ahead of public release. Further information can be obtained from Goran Stankov at g.stankov@niesr.ac.uk or by telephone on 020 7654 1901.

OTHER PUBLISHED REPORTS AND ARTICLES

- Barrell, R. and Davis, E., 'Financial liberalisation, consumption and wealth effects in 7 OECD countries', *Scottish Journal of Political Economy*, June.
- , 'Shocks and shock absorbers: the international propagation of equity market shocks and the design of appropriate policy responses', in Anderton, R. and di Mauro, P. (eds), *The External Environment of the Euro*, European Central Bank, pp. 150–77.
- Barrell, R., Gottschalk, S. and Hall, S., 'Foreign direct investment and exchange rate uncertainty in imperfectly competitive industries', in Korres, G. (ed.), *Regionalisation, Growth and Economic Integration*, London, Springer-Verlag.
- Barrell, R., Hall, S. and Hurst, I., 'Evaluating policy feedback rules using the joint density function of a stochastic model', *Economics Letters* (forthcoming).
- Cappon, P., Duke, C., Hasan, A., Meissner, W., Thornhill, D. and Metcalf, H., 'Thematic review of tertiary education, country note: Croatia', Report to OECD (forthcoming).
- Forth, J., Blanchflower, D. and Bryson, A., 'Workplace industrial relations in Britain, 1980–2004', *Industrial Relations Journal*, July, pp. 285–302.
- Forth, J. and Bryson, A., 'Productivity and days of the week', Report to Royal Society for the Encouragement of Arts, Manufactures and Commerce, June.
- Forth, J. and Stokes, L., 'Employment relations in the East of England', Report to Advisory, Conciliation and Arbitration Service (Acas), April.
- , 'Employment relations in London', Report to Advisory, Conciliation and Arbitration Service (Acas), April.
- Gottschalk, S. and Hall, S., 'Foreign direct investment and exchange rate uncertainty in South-East Asia', *International Journal of Finance and Economics* (forthcoming).
- Hall, S. and Mitchell, J., 'Combining density forecasts', *International Journal of Forecasting*, January, pp. 1–13.
- Holland, D., 'Funding the European Union', Report to House of Lords European Union Committee, March, HL Paper 64.
- Kangasniemi, M., Commander, S., Chanda, R. and Winters, L.A., 'The consequences of globalisation: India's software industry and cross border labour mobility', *The World Economy* (forthcoming).
- Kangasniemi, M., Winters, L.A. and Commander, S., 'Is the medical brain drain beneficial? Evidence from overseas doctors in the UK', *Social Science and Medicine*, August.
- Khoman, E., Mitchell, J. and Weale, M., 'Incidence-based estimates of healthy life expectancy for the United Kingdom: coherence between transition probabilities and aggregate life tables', *Journal of the Royal Statistical Society: Series A* (forthcoming).
- Kirsanova, T. and Sefton, J., 'A comparison of national saving rates in the UK, US and Italy', *European Economic Review*, November, pp.1998–2028.
- Lloyd, C., Osborne, M. and Payne, J., 'It's just the nature of the job at the end of the day: pay and job quality in UK mass market call centres', in Lloyd, C. and Mayhew, K. (eds), *Low Paid Work in the UK*, New York, Russell Sage Foundation.
- Mason, G., Mayhew, K. and Osborne, M., 'Low pay, labour market institutions and job quality in the UK', in Lloyd, C. and Mayhew, K. (eds), *Low-Paid Work in the UK*, New York, Russell Sage Foundation.
- Mason, G. and Osborne, M., 'Business strategies, work organisation and low pay in UK retailing', in Lloyd, C. and Mayhew, K. (eds), *Low-Paid Work in the UK*, New York, Russell Sage Foundation.
- Meadows, P. and Metcalf, H., 'Evaluation of the impact of Skills for Life learning: longitudinal survey of learners, Sweep 3', London, DfES.
- Metcalf, H. and Meadows, P., 'Outcomes for basic skills learners: a four-year longitudinal study', in Bynner, J. and Reder, S. (eds), *Tracking Adult Basic Skills: Findings from*

- Longitudinal research*, Oxford, Routledge.
- Metcalf, H., Meadows, P., Rolfe, H., Dhudwar, A., Coleman, N., Wapshott, J. and Carpenter, H., 'Evaluation of the impact of Skills for Life learning: longitudinal survey of adult learners on college-based literacy and numeracy courses, Final Report', London, Department for Innovation, Universities and Skills.
- Mitchell, J., 'Density estimates for real-time Eurozone output gap estimates', in Mazzi, G.L. and Savio, G. (eds), *Growth and Cycle in the Eurozone*, Basingstoke, Palgrave, pp. 310–21.
- Mitchell, J., Mouratidis, K. and Weale, M., 'Uncertainty in UK manufacturing: evidence from qualitative survey data', *Economics Letters*, February, pp. 245–52.
- Nadeem, S. and Metcalf, H., *Work-life Policies in Great Britain: What Works, Where and How?* London, Department for Business, Enterprise and Regulatory Reform.
- O'Mahony, M., 'International comparisons of output and productivity in public service provision: a review', in Boyne, G.A., O'Toole, L.J., Meier, K.J. and Walker, R.M. (eds), *Public Service Performance: Perspectives on Management and Measurement*, Cambridge, Cambridge University Press.
- Prais, S., 'Two recent (2003) international surveys of schooling attainments: England's problems', *Oxford Review of Education*, February, pp. 33–46.
- Riley, R., Kirby, S., Meadows, P., van de Ven, J. and Barrell, R., 'Evaluation of the macroeconomic impact of Jobcentre Plus and Jobseeker's Allowance New Deals: a feasibility study', Report to Department for Work and Pensions, August, Research Report no. 433.
- Riley, R. and Young, G., 'Skill heterogeneity and equilibrium unemployment', *Oxford Economic Papers*, April, pp. 702–25.
- Rolfe, H., 'Transnational mobility in IVET in the chemicals industry, MoVE'iT', EC DG for Education and Culture, June.
- Rolfe, H. and Nadeem, S., 'Opening up opportunities through advice and guidance', *EOC Working Paper Series, Number 49*, January, Report to Equal Opportunities Commission.
- Sefton, J., van de Ven, J. and Weale, M., 'Means-testing retirement benefits: fostering equity or discouraging savings', *Economic Journal* (forthcoming).
- Van de Ven, J., Sefton, J. and Weale, M., 'Les pensions sous conditions de ressources au Royaume-Uni, le reforme en marche', in Legros, F. (ed.), *Libres Opinions D'Experts Europeens*, Paris, Economica, pp. 99–107.
- Van de Ven, J. and Weale, M., 'A general equilibrium of annuity rates in the presence of aggregate mortality risk', in Alho, J.H., Hougaard, J. and Lassila, J. (eds), *Uncertain Demographics and Fiscal Sustainability*, Cambridge, Cambridge University Press.
- Weale, M., 'Following the Atkinson Review: the quality of public sector output', *Economic and Labour Market Review*, July, pp. 22–26.
- Wilkinson, D. and Callender, C., 'Higher education students' income, expenditure and debt: a comparison study of students in Scotland and England, 2004–2005', March.
- Wilkinson, D., Kasparova, D. and Marsh, A., 'The take-up rate of Disability Living Allowance and Attendance Allowance: feasibility study', Report to Department for Work and Pensions, July, Research Report no. 442.

PAPERS PRESENTED

- Barrell, R., 'The future of monetary union in Europe', European Institute, Birmingham University, March.
- , 'Economic growth and European social models', Roundtable presentation at Euroframe Conference towards an Ageing and Globalising Europe, University of Bologna, June.
- , 'Budget policies and multipliers', CEPII Breakfast Briefing for the Prime Minister's Cabinet, Paris, July.
- , 'Medium term growth and banking crises', Kiel Institute, September.
- Barrell, R., Holland, D. and Hurst, I., 'Correcting US imbalances', Peterson Institute of International Economics Workshop on Correcting Global Imbalances, February.
- , 'Sustainable adjustment of global imbalances', CASE Conference, Kiev, March.
- Barrell, R., Holland, D., Liadze, I. and Pomerantz, O., 'Fiscal spillovers and trade relations in Europe', MMF Cambridge University Conference, Trinity College, February and HM Treasury, April.
- , 'Volatility, growth and cycles', Wifo Conference on The Interrelation of Cycles and Growth', Vienna, September (forthcoming in *Empirica*).
- Barrell, R., Pomerantz, O. and Liadze, I., 'Import growth and the impact of globalisation', Project Link CASS Conference, Beijing, May.
- Barrell, R., Riley, R. and Fitzgerald, J., 'EU enlargement and migration: assessing the macroeconomic impacts', European Commission, March.
- Forth, J., 'Measuring the impact of people management practices on business performance', Westminster Economics Forum seminar series on Measurement, May.
- , 'An introduction to the analysis of WERS 2004', 8th European Congress of the International Industrial Relations Association, Manchester, September.
- Forth, J. and McNabb, R., 'The collection and validation of financial performance data within a voluntary establishment survey', Third International Conference on Establishment Surveys (ICES-III), Montreal, June.
- Kangasniemi, M., Robinson, C., Mas, M. and Serrano, L., 'Migration and productivity', EUKLEMS Consortium Meeting, Brussels, March.
- Khoman, E. and Weale, M., 'Ageing, health status and determinants of health expenditure', AHEAD, CEPS, ENEPRI and ISAE, Rome, February; Brussels, June.
- , 'Healthy life expectancy in the EU member states: calculations from the ECHP', 4th Meeting of the Task Force on Health Expectancies', Luxembourg, June.
- Kirby, S. and Riley, R., 'The external returns to education: UK evidence using repeated cross-sections', HM Treasury, London, July and Annual Conference of the European Association of Labour Economists, Oslo, September.
- Lui, S., 'Empirical factor analysis of stock volatility using stochastic volatility factor model: evidence from five Asian stock indexes', 4th Advances in Applied Financial Economics Conference – QASS, July.
- Mitchell, J., 'Nowcasting', HM Treasury, April.
- , 'Understanding revisions to density forecasts: an application to the Survey of Professional Forecasters', Econometrics Workshop, Warwick, April.
- , 'Averaging density forecasts from VARs with real-time US data', Norges Bank Workshop on Prediction and Monetary Policy in the Presence of Model Uncertainty, Norges Bank, Oslo, June.
- Mitchell, J., Jore, A.S. and Vahey, S.P., 'Combining forecast densities from VARs with uncertain instabilities', 3rd Annual CIRANO Workshop on Data Revision in Macroeconomic Forecasting and Policy, Montreal, October.
- Mitchell, J. and Weale, M., 'The rationality and reliability of expectations reported by British households: micro evidence from the British

- Household Panel Survey', Joint Deutsche Bundesbank and Federal Reserve Bank of Cleveland Conference on Monetary Policy Strategy: Old Issues and New Challenges, Frankfurt, June.
- Nadeem, S. and Metcalf, H., 'Work life policies: determinants of individual option and overall provision', American Academy of Management Annual Meeting, Philadelphia, August.
- , 'Misperceptions about the availability of flexible working options: an analysis of WERS 2004', British Academy of Management Conference 2007, Warwick, September.
- Sefton, J. and van de Ven, J., 'Utility maximising design of means tested retirement benefits', Meade Centenary Meeting, Bank of England, July.
- Van de Ven, J., 'Means testing retirement benefits: fostering equity or discouraging savings', Workshop on Pension Reform in the UK, Centraal Planbureau, the Hague, April and Applied Microeconomics Seminar, Cambridge University, May.
- Van de Ven, J. and Sefton, J., 'Means testing retirement benefits: is there an ideal taper rate?', ESRC Festival of Social Science 2007, March.
- Van de Ven, J. and Weale, M., 'Aggregate mortality risk and the annuities market', World Economy and Finance Conference, LSE, June and Conference on Pension Reform in China, Brunel University, October.
- Weale, M., 'Quality of public sector output', ONS Meeting to launch *Economic and Labour Market Review*, July.
- , 'Health spending in the EU', Economic Policy Committee of the European Commission, Brussels, October.
- Wilkinson, D. and Stokes, L., 'Pre-school childcare and education – a value for money comparison of public and voluntary sector provision', National Council for Voluntary Organisations, May.

OUR EVENTS PROGRAMME 2007

The National Institute of Economic and Social Research continued to develop its wide-ranging programme of events in 2006/7.

WESTMINSTER ECONOMICS FORUM

In September 2001 NIESR and the ESRC launched a forum for policymakers and businesses based in the Westminster area. This forum consists of a number of lunchtime seminars based on a central theme. Until 2007 the series was chaired by Frances Cairncross, CBE, former Chair of the ESRC, with series summaries provided by Paul Wallace of *The Economist*. The theme in 2006/7 was 'Measurement and Data Performance' and included presentations by Professor Carol Jagger, University of Leicester, on 'Measuring healthy life expectancy'; Dr Ewart Keep of



Dr Ewart Keep

Warwick Business School on 'Measuring and comparing skills and skill levels – not as easy as it looks?'; and John Forth of NIESR on 'Measuring the impact of people management practices on business performance'. The series concluded with a dinner and presentation by Professor David Rhind, Vice-Chancellor of City University and Chair of the Statistics Commission, on 'Conveying complexity'.

ESRC FESTIVAL OF SOCIAL SCIENCE

NIESR took part in the ESRC's Festival of Social Science in March 2007 by organising two seminars. The presentations were: 'Means testing

retirement benefits – is there an ideal taper rate?' by Dr Justin van de Ven, NIESR Research Fellow, and 'Annuities and uncertain life expectancy', by Dr Martin Weale, NIESR Director. The former was held at NIESR and the latter at Prudential headquarters. Both attracted a high level audience from business and policymaking.

EUKLEMS GROWTH AND PRODUCTIVITY ACCOUNTS

In April NIESR organised an event to coincide with the release of the EUKLEMS Growth and Productivity Accounts. This marked a major milestone in an ongoing EC project and the event attracted an audience comprising participants from sixteen organisations from across the EU, representing a mix of universities, national economic policy research institutes, statistical offices from across the EC and the OECD.

ANGLO-GERMAN FOUNDATION CONFERENCE

Another conference was held to mark the conclusion of an Anglo-German Foundation funded grant, and the discussion centred around 'The determinants of investment in R&D: international and UK evidence'. It included the following presentations: 'Policies to promote R&D in Europe and in the UK', by Mark Beatson, Director of Science and Innovation Analysis at the Department of Trade and Industry; 'Innovation, productivity and skills', by Geoff Mason, Brigid O'Leary and Michela Vecchi of NIESR; and 'R&D and productivity in the UK: what can firm-level data tell us?', by Mark Rogers of Harris Manchester College, Oxford.

DTI CONFERENCE

A one day conference at the British Academy entitled 'Challenges and innovations in establishment surveys' was funded by the DTI. The conference brought together a number of experts in the field to examine some of these challenges in detail and to identify innovative methodologies. The programme addressed a range of topics from sampling and contact procedures

to methods of maximising response. Presentations examined how these issues have been tackled in recent applications of the survey method, both in Britain and elsewhere. The conference was supported by the Social Research Association and Government Social Research.

GOVERNORS' SEMINARS

This series continued with a presentation by Professor Heather Joshi, OBE, FBA, Director, Centre for Longitudinal Studies, Institute of Education, on the 'Millennium cohort survey as a resource for research and policymaking'.



Heather Joshi

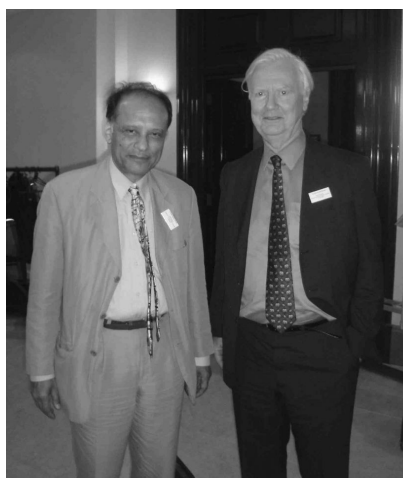
JAMES MEADE CENTENARY

The major conference of the year took place in July when NIESR organised a two-day event hosted by the Bank of England and supported by the ESRC to mark the centenary of Nobel prize-winning economist, James Meade. Speakers at this event included Sir Tony Atkinson, Professor Charles Bean, Sir Partha Dasgupta, Sir James Mirrlees, Sir Nicholas Stern, and Professor Robert Solow. The audience comprised some of economics' leading academics and policymakers from around the world.

EVERYDAY ECONOMICS

In December 2007 the Institute started a new series of seminars organised in conjunction with and funded by the National Audit Office. Entitled 'Everyday Economics', this series began with a presentation by Professor David Miles, Chief UK Economist at Morgan Stanley, on 'House prices and the credit crunch'. This series aims to combine high quality academic research with topical issues and is aimed at a policymaking and business audience.

The Institute could not arrange this wide range of events without the cooperation of many people who act as speakers, discussants and chairs. We would like to take the opportunity to thank them for their valuable contribution to NIESR's dissemination activities during 2007.



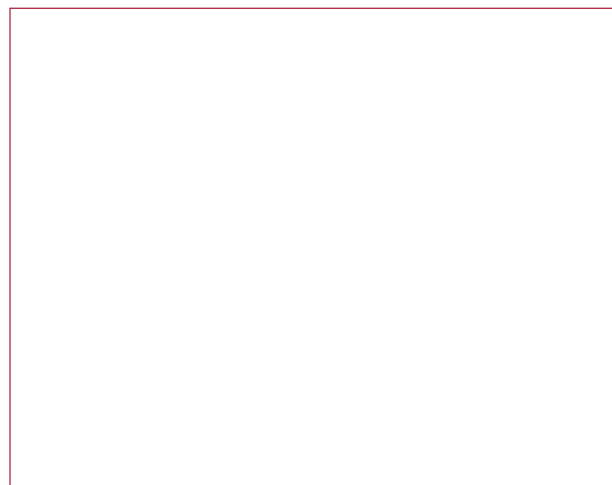
Sir Partha Dasgupta and Sir James Mirrlees

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The following organisations have funded research at the National Institute during the year.

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Bank of England
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Split of funds between various research supporters



Reserve Bank of New Zealand
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NIESR has a corporate membership scheme which helps to fund the generic research of the Institute and in particular the economic forecasts contained in the National Institute Economic Review. The support of these organisations is vital in assuring our complete independence. All corporate member organisations are acknowledged in the forecast section of the Review.

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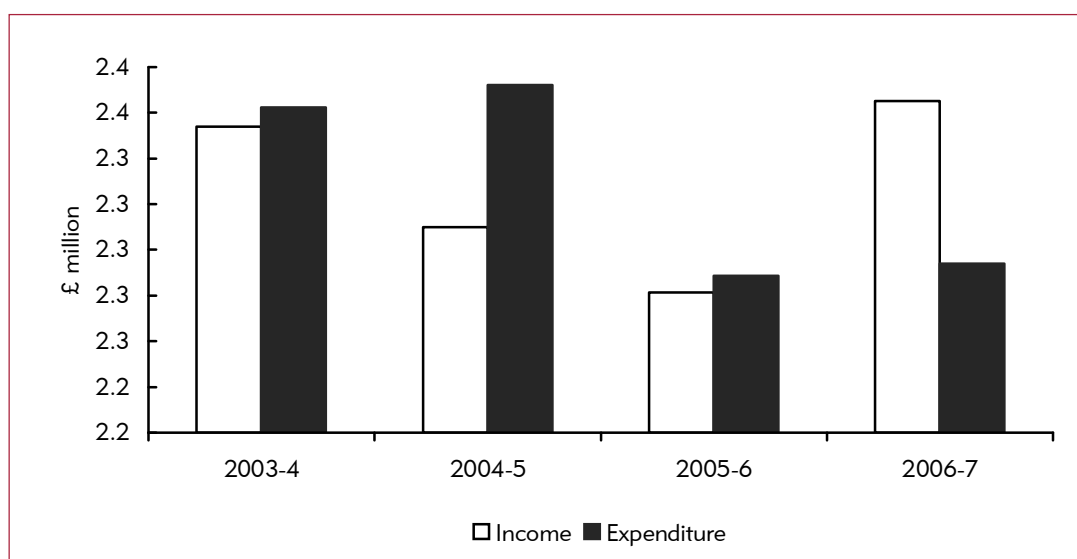
Further details about the Corporate Membership Scheme, or how to make a financial donation to NIESR, are available from the Secretary, Gill Clisham: telephone 020 7654 1920 or e-mail g.clisham@niesr.ac.uk.

FINANCIAL SUMMARY

In the year to 31 March 2007 the Institute reported an operating surplus for the year. The policy of the Council is to balance income and expenditure over the long term, while recognising that fluctuations may occur in individual years. Full accounts for each of the years listed, including an unqualified audit report from KPMG Audit plc, have been filed at Companies House and the Charities Commission.

	2003/4	2004/5	2005/6	2006/7
Income				
Research	1,340,959	1,464,212	1,408,324	1,466,656
Publications & Misc	441,776	335,247	313,108	295,862
Model income	383,118	353,667	391,862	413,477
Corporate Supporters	67,835	51,900	35,000	26,500
Investments income	120,023	104,870	133,241	194,410
Total Income	2,353,711	2,309,896	2,281,535	2,364,964
Expenditure				
Research (incl Library)	1,509,359	1,771,615	1,549,687	1,659,275
Support Costs (incl non research salary)	684,482	486,726	630,102	535,131
Premises	95,216	51,800	51,465	48,221
Governance & professional costs	73,086	61,900	57,361	51,163
Total Expenditure	2,362,143	2,372,041	2,288,615	2,293,790
Operating Surplus/(Deficit)	(8,432)	(62,145)	(7,080)	71,174

Note: The categorisation of costs has been changed for 2004/5 onwards to comply with the new SORP on Charity accounts



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