CONTENTS

I am glad to report that the National Institute is in healthy shape. The accounts show a small loss which is a counterpart to the large surplus recorded in 2002–3 and reflects the fact that substantial maintenance work planned for last year was delayed until 2003–4.

It is obviously desirable that the National Institute should be funded some way in advance. We rely on grants and research contracts of varying length and my colleagues and I have to plan ahead to ensure that terminating research support can be replaced by funding from new sources. There is obviously a balance between the advantages of having funds arranged some way ahead and retaining the flexibility to be able to produce work on issues which become topical but which might not have been anticipated. For the current financial year our situation remains good and we have also made excellent progress with raising the funds which are needed to support our activities in the year starting in April 2005. I am pleased to note that Geoff Mason has raised a substantial grant from the Russell Sage Foundation to whom we are grateful for their support for our research.

Our success has been helped by the fact that our research staff has expanded slightly in the past couple of years or so. We have strengthened our senior input with contributions from Philip Davis and Stephen Hall, both of whom have university posts. Two staff are to be congratulated on being appointed to chairs. Mary O'Mahony becomes Professor of International Economics at Birmingham University and James Sefton Professor of Economics at Imperial College having had a part-time appointment there in the past. In both cases we expect them to remain closely involved with our research. We also congratulate George Kapetanios, who started his research career with us, on his promotion to a chair at Queen Mary College. But for the Institute to succeed, wholehearted contributions are needed from all our staff and we are fortunate with the efforts everyone has made. I am glad to thank all our staff and collaborators for the work they have done for the Institute in 2004.

For the first time since 1991, the National Institute is receiving regular public funding for the preparation of an economic forecast. We are part of a network of research institutes funded by the European Commission to produce forecasts of the Euro Area and the European Union. The forecast is a combined effort of network members and is produced using the National Institute's Global Econometric Model. It will provide input into the policy debate in the European Union as a view which is independent of both the Commission and the European Central Bank.

European Commission support does not, however, extend to production of our more detailed forecast of the United Kingdom. The costs of producing that are underpinned by the support we receive from our Corporate Members. We are most grateful indeed to have this support from companies who appreciate the value to society of a lively and informed discussion on matters of economics and economic policy.

The support for the Global Econometric Model itself is provided by a user group which includes a number of international organisations and finance ministries and central banks throughout the world. The model is distinguished from econometric models made available through commercial enterprises by its strong theoretical structure. This makes it particularly suitable as a tool for policy analysis as well as economic forecasting. I am grateful to Ray Barrell for the work he has put into building up and maintaining the user group over a long period.

The Institute has always been active in academic work and involved in the policy debate in the UK and elsewhere. Our policy interventions have always been backed by the highest quality academic research, and it is this backing that has made them so effective. I take the view that all of our output must continue to be of this nature, and that this requires that we continue to conduct research of high academic quality and that we need to give staff every help in publishing their work in academic media of suitable standing. The balance of effort between publishing in appropriate academic media and ensuring high visibility for our output is a matter of judgement. I am glad to report that we maintain a visibility higher than most university departments as well as continuing to publish in highly-regarded journals.

The Institute can claim a number of successes in the policy debate. It is over two years since we first expressed our concerns about the public finances in the medium term. Whether those fears turn out to be realised or not, they have now become the mainstream view. At the same time those who observed that our forecast would be "wrong again" have been proved to be correct only in that public sector revenues have been even weaker than we expected. But much more important than the accuracy of any particular forecast is the growing recognition that the fiscal rules as currently in place are unsatisfactory. Both opposition parties now recognise the need to provide some sort of institutionalised independent assessment of performance against the fiscal rules, an issue to which we first drew attention in 2002.

Another area where our work has resonated has been in the OECD's survey of school performance. We summarised the shortcomings of the method used to construct the sample of English schools for the OECD's 2000 survey in our *Annual Report* in 2003 (pp. 16–17) with the argument spelt out in full in the *Oxford Review of Education*. Those carrying out a new survey in 2003 did not, unfortunately, remedy the defects but the OECD has decided that without those shortcomings being addressed the data are not sufficiently reliable to merit publication.

We have continued to work on other aspects of education. Hilary Metcalf has led work, now close to completion, on staff attitudes and perceptions in higher education. This involved the first survey which the National Institute has run on the internet; it has allowed us to work with a much larger sample than would have been possible in a conventional survey.

I anticipate a substantial policy impact from some of the work currently underway at the Institute. We are working jointly with York University on the measurement of productivity in the health service. This study, funded by the Department of Health, is intended to lay the foundations of a much superior method of measuring output and productivity change in this key area of the public sector and a successful conclusion will lead to it becoming the standard from which further improvements are developed. In doing this there is a wide range of subtle issues to be addressed. Does improved health as a consequence of better drugs reflect on the performance of the health service or of the pharmaceutical industry? How much weight should be given to improvements in the quality of services which have little impact on people's health and how should such improvements be measured?

Other work may have less immediate policy impact but can nevertheless be important. For example we have worked on the foundations of the concepts of income and saving and have developed ways of defining these in terms of the behaviour of aggregations of individual households. But this conceptual work leads to important practical conclusions – for example that it can be a mistake to regard capital gains as an alternative to savings.

Much of this report is devoted to accounts of particular pieces of work completed at the Institute in the past year. I hope you will find it stimulating reading.

NIESR CONTINUES TO PROVIDE POLICY-RELEVANT ACADEMIC RESEARCH

In his review of 2004, Martin Weale drew attention to the fact that the Institute continues to act as a bridge between the academic and policymaking communities. From our offices in the centre of Westminster, we have dealt with issues which have significant policy relevance and have combined this strength with thorough academic research. As a result, serious economics commentators look to the Institute for a measured approach to news items which can only too easily be subject to shallow 'sound bites'.

House prices and interest rate levels have generated great public interest throughout the year. In July, the Institute's claim that house prices were 30 per cent above their long-term sustainable level was widely reported in both the written and broadcast media. We entered the policy debate by advocating interest rate rises to stem house price inflation and prevent the sort of house price crash experienced in the 1980s.

"A more independent analysis of the housing market was provided last week by the National Institute of Economic and Social Research (NIESR). Using its own model . . . [it] claims to have detected a pattern from past booms and busts." *The Sunday Telegraph*, 1/8/2004

"That the housing market is overvalued is in little doubt. The National Institute of Economic and Social Research has put the excess . . . at 30 per cent." *Financial Times*, 30/7/2004

In addition, we influenced debate by using our research into pensions provision and the current level of public sector borrowing as a basis to comment on these highly topical issues. Senior members of our research team were also invited to give expert evidence to a number of parliamentary select committee sessions during the year.

However, our influence stretches beyond the UK. In August our research was cited by OPEC when the issue of oil prices and their effect on the world economy was discussed:

"OPEC . . . pointed to a recent report by the [NIESR]. The report predicted that if high oil prices were sustained for two years, they could reduce economic growth in Europe and the US by 0.2 percentage points in 2004 and 0.4 percentage points in the US in 2005."

Financial Times, 19/8/2004

The breadth of our research and other activities can be seen throughout this report. As shown here, our quarterly journal, the *National Institute Economic Review*, was reported widely in the press and we have continued with our highly successful programme of events (pp. 17–18) both independently and with the cooperation of other organisations such as the Economic and Social Research Council (ESRC), Bloomberg TV and the DfES. This type of collaboration will continue in 2005 with the Sir Richard Stone Lecture Series (with the Bank of England and Cambridge University Press) and another series of the Westminster Economics Forum (with the ESRC). We would like to take the opportunity to thank all those who have contributed to our seminar and conference programme and to the *National Institute Economic Review* throughout the year.

We are delighted that a number of people have accepted our invitation to become Governors of the Institute during 2004 – Professor Andrew Harvey, FBA, Professor Gordon Marshall, Dr David Miles, Professor David Rhind, CBE, FRS, FBA, Professor Adrian Smith, FBA and Professor Richard Smith. In addition, a Governor, Bronwyn Curtis, Managing Editor, Bloomberg, has joined our Council of Management.

We launch a 'new look' *National Institute Economic Review* in 2005, confident that we will continue to thrive as a well-respected organisation which remains as policy-relevant as its founders intended when it was established in 1938.

FINANCIAL CRISES AND CONSUMPTION

Banking crises in the OECD seem to have become more common as financial liberalisation has proceeded. The literature on costs of financial instability tends to focus on fiscal costs and the impact on GDP of banking crises. However, the channels through which crises act may change over time as the structure of economies evolves, and appropriate policy defences against crises may therefore also have to change over time. A sequence of papers has investigated the determinants of consumption, looking in particular for the impacts of banking crises on consumption in the OECD countries over the past 30 years.

The effect of a crisis on consumption has been found over and above those from the impact of the crisis on real personal disposable income and net financial wealth. Results show that consumption plays an important role in the macroeconomic adjustment following a financial crisis. Furthermore, the effect of a crisis is aggravated by high leverage, notably as shown by the effect of a high consumer debt–income ratio, despite the benefits of financial liberalisation in easing liquidity constraints. The effect is also greater in a small open economy than in the G-7. In addition, falling house prices are shown to be part of the transmission process of financial instability, and are an indicator of potential sharp declines in consumption.

During the 1990s debt–income ratios rose in most advanced economies, and real house prices have been generally at record levels. Hence any potential banking crises would impact more heavily on consumption than has been the case in the past. Increased regulation of institutions undertaking consumer lending may be a necessary consequence of increasing liberalisation of financial markets if we are to guard against major impacts from banking crises. Policymakers should also be more concerned about excessive house prices than in the past as they are clearly part of the propagation mechanism of crises.

If a crisis were to take place, monetary reactions and fiscal responses could significantly mitigate the effects. The monetary reaction to a country specific crisis in Europe would be muted as the ECB has to take account of Area-wide effects, and fiscal policy is constrained by Treaty. A simulation for a banking crisis in the UK, taken only as an example, underlines the important role of monetary and fiscal policy in easing the impact of a financial crisis. The impacts of a 'normal size' crisis on the economy are given in the table, with the assumption that the Bank does react. If it were not to do so the effects would be 50 per cent greater. Viewed in the light of growing consumer leverage in recent years the results imply that a banking crisis taking place now could have a greater impact than in the past, especially if macroeconomic policy is unable to respond, as for a small country in EMU.

This work has been undertaken by Ray Barrell, E. Philip Davis and Olga Pomerantz. Enquiries to r.barrell@niesr.ac.uk

Impact of a banking crisis on expenditure and sector balances (% difference from base)

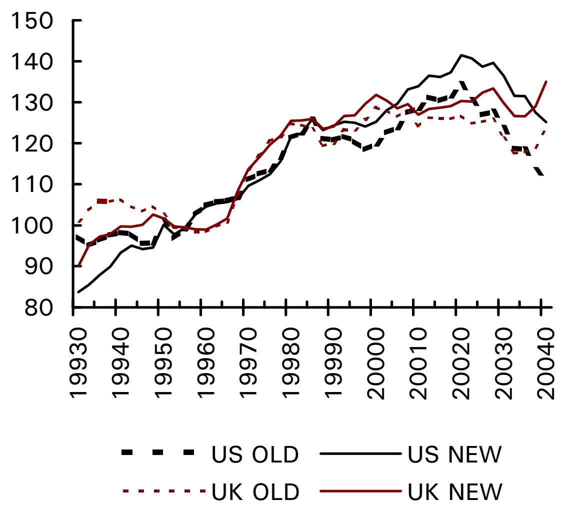
	Consumption	Business investment	Housing investment	GDP	Current balance	Fiscal deficit
2003	–3.17	–5.22	–5.26	–0.92	1.70	–1.90
2004	–6.90	–16.10	–16.09	–3.56	4.00	–1.70
2005	–7.30	–15.09	–15.10	–3.63	3.91	–0.06
2006	–5.47	–6.74	–6.74	–1.95	2.57	1.87

THE EFFECTIVE EXCHANGE RATE

The nominal effective exchange rate is a measure that captures the overall change in the exchange value of a currency. It is calculated as a geometrically weighted average of global exchange rates, with the weights reflecting the relative importance of other currencies, as measured by trade flows. Recent revisions to competitiveness measures calculated for the Institute's Global Econometric Model, NiGEM, have introduced three key improvements to our estimate of the effective exchange rate: the outdated trade matrix based on patterns of trade in 1994 has been replaced with an updated matrix for 2000; the composition of trade has been expanded to include services as well as goods; and the country coverage has been broadened to reflect a more genuinely global measure.

The new indices modify our views of effective exchange rate developments in major economies, and may help to explain the relatively benign inflationary pressures exhibited by countries such as the US and the UK over the past 4–6 years. The chart below illustrates both the new and the old measures of the effective exchange rates for the US and the UK. The new measures show the exchange rate in both countries, relative to 1995, as roughly 10 per cent stronger at the start of 2004 than the old measures.

Effective exchange rates in the US and the UK
1995 = 100



The observed revision can be partly attributed to updating our base year, so that weights reflect bilateral trade patterns in 2000, rather than 1994. There was a significant shift in trade patterns over this period, with China and countries from Eastern Europe capturing a larger share of world trade. The new measure also includes a much broader country coverage than the old measure, which covered the G-7 economies and all EU economies, plus Norway, Switzerland, Australia, New Zealand, South Korea, Mexico, Poland, Hungary and the Czech Republic. The new measure includes individual weights for Slovenia, Slovakia, Estonia, Lithuania, Latvia, Brazil, Russia, Hong Kong and Taiwan. In addition, the rest of the world is captured through proxy measures that weight together exchange rates for the largest countries in the rest of the world.

The third factor behind the differences in the two series is that the new measure is expanded to include both merchandise trade and services trade, while the old measure covered only merchandise trade. Services account for nearly 20 per cent of global trade, and their pattern of trade is significantly different from that of goods. The inclusion of services, therefore, provides a better picture of global trade patterns and a more accurate measure of the effective exchange rate.

Future work at NIESR will explore chain-weighted indices, allowing weights to vary over time and reflect changes in the global pattern of trade.

This work was carried out by Dawn Holland, Amanda Choy and other members of the macro team. Enquiries to a.choy@niesr.ac.uk.

COMBINATION OF DENSITY FORECASTS

This new project, funded by the ESRC, investigates whether and how far density forecasts sensibly can be combined to produce a 'better' pooled density forecast. Consistent with previous findings about point (mean) forecasts, we find that pooling information across competing density forecasts can deliver empirical gains.

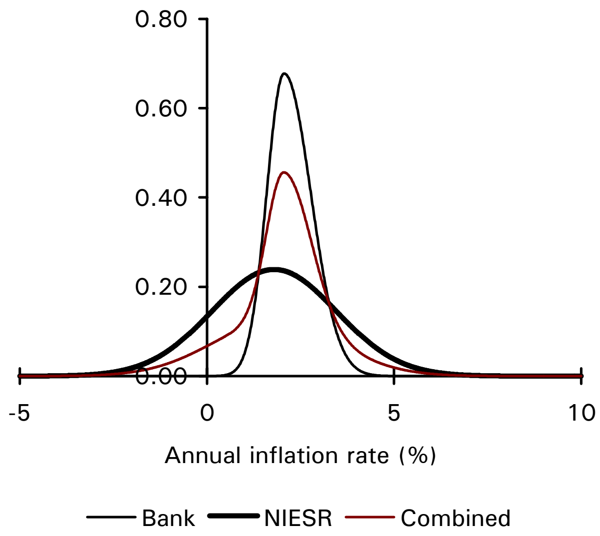
'Density' forecasts are being used increasingly since they provide a full impression of the uncertainty surrounding a 'central tendency' (the point forecast). For example, density forecasts of inflation are now provided each quarter both by the Bank of England in its fan chart and NIESR in its quarterly forecast. It is well established that combining competing individual point forecasts of the same event can improve accuracy. This project takes the natural next step of considering density forecast combination, to-date a relatively unexplored area.

The efficacy of density forecast combination is assessed in an application to two widely used density forecasts that have both been published each quarter for ten years. We examine whether improved density forecasts for UK inflation, one year ahead, might have been obtained if one had combined the Bank of England and NIESR density forecasts.

Combined density forecasts can look quite different from the Bank of England and NIESR densities. These differences depend on the shape of the individual densities and the method of combination. To illustrate these differences, the chart compares those forecasts, for year ahead inflation, made by the Bank of England and NIESR in 2001Q4 with the combined density obtained using equal weights.

Our results indicate that over the period 1993–2003 Bank of England density forecasts were well specified. In contrast, for much of the period NIESR overestimated the degree of uncertainty associated with its forecasts. However, we find that there remained useful information in NIESR density forecasts; combining the Bank of England and NIESR density forecasts delivers gains relative to use of either of the two densities alone.

A comparison of Bank of England, NIESR and combined density forecasts for inflation made in 2001Q4.

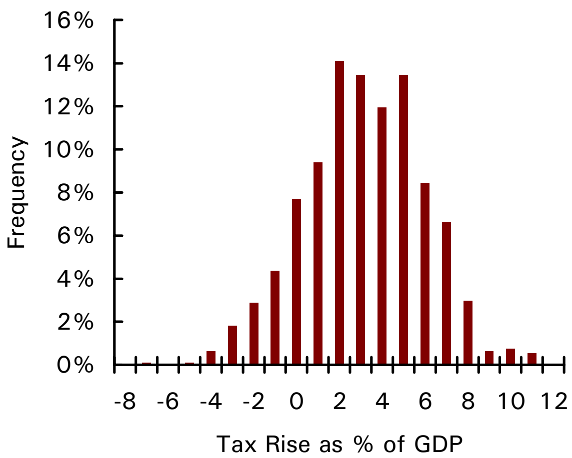


This work is being undertaken by James Mitchell and funded by the ESRC. Enquiries to j.mitchell@niesr.ac.uk

The effects of population ageing on economic performance are now central to the economic debate. Nevertheless demographic forecasts, like economic forecasts, are subject to very considerable uncertainty. A part of the problem faced by some pension funds is attributed to the fact that life expectancy has risen faster than expected. Most population projections assume that fertility rates eventually recover from current very low rates to levels at which the population is stable. Experience demonstrates that the standard assumptions used in constructing demographic forecasts will turn out to be 'wrong' and the key challenge the economist faces is to find a coherent way of representing the implications of the uncertainty surrounding demographic forecasts for the economy.

The National Institute has been working with a number of European Partners in a project financed by the European Commission's Fifth Framework to explore the economic consequences of population of uncertainty. Our starting point has been a stochastic model of population change developed by our Finnish collaborators. This allows us to produce stochastic simulations of future population on the assumption that future fertility, mortality and migration rates are all subject to random and unpredictable disturbances. By carrying out a thousand stochastic simulations it is possible to obtain estimates of the likely spread of aggregate population and key ratios such as the ratio of people over 65 to people of working age, the dependency ratio. The simulation process does not allow for the sharp changes in mortality associated with risks or past realisations of sharp population collapses (e.g. the Doomsday bomb or the Black Death) and for this reason it probably understates the true population uncertainty we face.

Spread in % rise in income taxes needed to balance intertemporal budget



With this reservation we explore the dispersion of the dependency ratio generated for 2052. Although a value of around 50 per cent is the most likely value, there are substantial risks of considerably lower or considerably higher values. Lower values imply that the burden of population ageing turns out to be smaller than is generally thought while higher values imply that those of working age in mid-century will face a tax burden larger than is currently expected in the support of the elderly.

We explore this in further detail using generational accounts. These allow us to calculate the extent to which taxes need to rise or fall to ensure that, in the long run, the government budget is in balance. The chart shows the dispersion of the percentage increase in direct tax rates which we think will be needed to achieve this balance. The most likely increase is around 2–3 per cent of GDP but it can be seen that there is a risk of much larger increases if fertility rates fall further instead of recovering and also the possibility that no increase will be needed. A risk-averse population would probably seek to protect itself, at least to some extent, against the risk of doing nothing now and finding in the future that the situation is worse than feared.

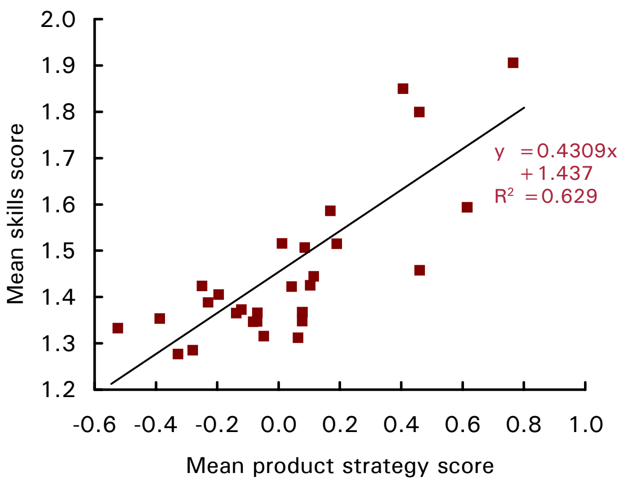
This research was carried out by Martin Weale and funded by the European Commission. Enquiries to m.weale@niesr.ac.uk

ENTERPRISE PRODUCT STRATEGIES AND DEMAND FOR SKILLS

It is now widely recognised that employer demand for skills in Britain is quite low by comparison with several other industrialised nations, reflecting the fact that a large proportion of British enterprises have adopted relatively low value-added product (or service) strategies. To date much of the evidence on the incidence of product strategies has been based on international comparisons (typically involving case studies). However, recent quantitative research carried out at NIESR has made use of a new measure of product strategy derived from the 2001 Employers Skills Survey to investigate differences between British-based companies in the links between product strategies, skill levels and indicators of economic performance.

This measure of product strategy captures the choices made by establishments in relation to market niche, complexity of product specification, innovation leadership and the extent of their dependence on low prices for competitive success. As the chart shows, there is a strong correlation between product strategy and workforce skills at sector level. Sectors ranking high on product strategies and skills include computer services and technical business services. At the other end of the scale on both measures are sectors such as non-specialised retailing and transport services.

Mean product strategy scores and mean skills scores, analysed by sector, England 2001



Note: Mean product strategy scores and mean skills scores derived from 2001 Employers Skill Survey (see text for details).

However, the research also identifies a striking amount of within-industry variation in the degree of specialisation in 'high', 'medium' and 'low value-added' activities along the product strategy spectrum, with associated variation in skill requirements.

After controlling for employee size-group, sector, regional location, site function, recent sales growth and a number of other factors that influence skill requirements, multivariate analysis finds that high value-added product strategies are strongly associated with workforce skills at establishment level as well. High-value-added product strategies are also found to be highly correlated with a focus on national and international product markets rather than less competitive local and regional markets.

In some product areas where local, regional and even national demands for basic-quality standard-ised goods and services are strong, product strategies based on low-skill, low value-added production may well be viable into the foreseeable future for many firms. However, the analysis finds that, overall, low-value-added product strategies are significantly associated with recent declines in sales and with relatively low levels of capacity utilisation. This implies that a significant proportion of British firms pursuing low value-added product strategies could enhance their competitiveness by moving to higher specification, more skill-intensive products and services.

In this context two challenges for policymakers are, firstly, to be able to identify the types of enterprises whose existing product strategies are unsustainable and, secondly, to develop new strands of education, training and industrial policy which will help to ensure that the future skill needs of such employers can be met.

This research was carried out by Geoff Mason. It was supported by the ESRC-funded research centre on Skills, Knowledge and Organisational Performance (SKOPE). Enquiries to g.mason@niesr.ac.uk.

Poor literacy and numeracy skills have multiple and wide-ranging effects on adults' (and their children's) lives, affecting, for example, self-esteem, employment, income and, perhaps, health. The Government set up its 'Skills for Life' *programme to tackle low levels of basic skills amongst adults by improving access to, and the quality of, basic skills training. Using a longitudinal survey design, NIESR is evaluating its effects for participants on college-based literacy and numeracy courses.*

Analysis of the first wave of the survey (jointly with the DfES Skills for Life survey) examined participation in college-based literacy and numeracy courses. This found that the programme was particularly good at reaching certain groups disadvantaged in the labour market, namely, Black Caribbeans, Pakistanis/Bangladeshis and lone parents. The programme was less successful in reaching those without any qualifications or those with a long-term illness or disability. Participation for parents varied with the age of their children; parents with children aged under three were more likely to participate, as were those whose children were aged eight and over. Participation was lower amongst the employed, suggesting either that this group felt less need for basic skills training or that employment reduced access to basic skills training. The table shows that the probability of participating in college-based literacy and numeracy courses varied with characteristics. The first row gives the probability for the listed characteristics. Subsequent rows give the probability for a given change in characteristics. For example, a person with a partner and no children (and the other characteristics listed) has a probability of 0.80 per cent of participating in training. This rises to 2.07 per cent if he or she was Black Caribbean and falls to 0.42 per cent if he or she had a long-term illness or disability.

The probability of participating in basic skills training

White, aged 36, with a partner or spouse, no long-term illness/disability, numeracy and literacy competence at Entry Level 1, no self-assessed problem with maths, reading or writing, no qualifications, English a first language, spoken English fine, not employed

	No children	Children: youngest aged 5–7 none aged 8–11
Probability of participation	0.80	0.56
No partner/spouse	0.27	0.59
Oldest child 5–7		0.30
Child aged 8–11		0.26
Black Caribbean	2.07	1.45
Pakistani/Bangladeshi	2.17	1.52
Age (additional year)	0.78	0.54
Long-term illness/disability	0.43	0.30
Self-assessed problem:		
with maths	2.72	1.91
with reading	1.28	0.89
with writing	1.75	1.22
Highest qualifications:		
below Level 1	2.31	1.62
Level 1	3.49	2.46
Level 2	2.11	1.47
English not first language	2.48	1.74
English not good	0.06	0.04
Employed	0.29	0.20

Preliminary analysis of the second wave of the survey, using a matched comparison approach, suggests that participation in college-based literacy and numeracy courses has, after one year, important effects on individuals and, potentially, on their labour market success. Participation significantly increased individuals' self-esteem and their assessment of their literacy and numeracy skills. It also appears to have a slight beneficial effect on health. Although no effects on employment were found, commitment to employment rises, as does commitment to education and training, suggesting that employment effects may occur at a later stage.

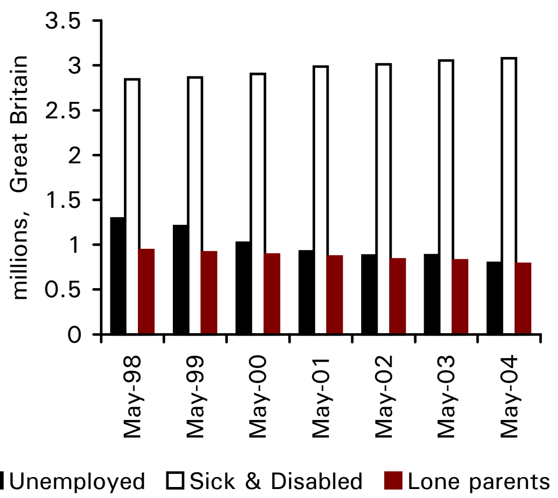
This work is being undertaken by Hilary Metcalf and Pamela Meadows and is funded by the DfES. Enquiries to h.metcalf@niesr.ac.uk

WORK-FOCUSED INTERVIEWS FOR INACTIVE BENEFIT CLAIMANTS

In the past seventeen years the unemployment share of the working age population has fallen by 5 percentage points. Over the same period the share of the population of working age classified as economically inactive, or outside the labour market, has remained broadly unchanged. As a result, policy measures to increase employment that have typically been directed towards the unemployed are increasingly being extended to other out-of-work groups. A NIESR study evaluates the effect of one such measure, compulsory work-focused interviews (CWFI), on the probability of leaving benefit for female lone parents and disabled people. The study finds little evidence to suggest that CWFI increase labour market participation amongst these groups.

Over the past twenty years the emphasis of labour market policy in the UK and other OECD economies has moved away from passive support of the unemployed towards compulsory activation. CWFI is one such activation policy, which, in comparison to other active labour market policies, has proved relatively successful in helping the unemployed back into work. With CWFI benefit payments are contingent on participation in a work-focused interview, intended to help individuals move towards self-support.

Benefit claimants of working age



Source: Work and Pensions Statistics 2001–2004, Department for Work and Pensions

In Britain, CWFI have been part of claiming unemployment benefit in one shape or another since the introduction of Restart interviews for the long-term unemployed in 1987. Lately, CWFI have been extended to economically inactive benefit claimants in Britain. Lone parents claiming Income Support and people claiming disability related benefits account for the majority of this group. Due to the numbers involved (see chart), the rationale for directing policy towards inactive benefit claimants is clear. However, it is not obvious that the help given to the unemployed will prove particularly suitable to other benefit claimants who are likely to face more significant disincentives and barriers to work.

A recent NIESR study evaluates the effect of CWFI on the probability of leaving benefit for economically inactive benefit claimants. CWFI for this group were first introduced in Britain under the ONE pilot programme in April 2000. Under the ONE service new and repeat claimants of working age for the main out-of-work social security benefits were obliged to participate in a work-focused interview with a Personal Advisor as a condition of receiving benefit payments. Examining administrative panel data on individuals, the study finds that CWFI, as implemented under the ONE programme, is an ineffective means of raising labour market participation amongst lone parents and disabled people claiming social security type benefits. This result may partly be attributable to peculiarities of the ONE programme. The authors conclude that CWFI are unlikely to prove successful without careful design, policy commitment to changing longer-term outcomes and concurrent initiatives to raise incentives and reduce barriers to work for inactive benefit claimants.

This work was undertaken by Simon Kirby and Rebecca Riley and funded by the Department for Work and Pensions. Enquiries to s.kirby@niesr.ac.uk or r.riley@niesr.ac.uk

The childcare sector employs an estimated 275,000 paid staff across a wide range of settings, including day nurseries, pre-schools and playgroups and in their own homes as childminders. Not only is it a large employer, it enables parents to work outside the home, and has therefore been a key area for government employment policy in recent years. With plans to increase the number of childcare places to meet growing demand, concerns about long-standing problems with recruitment and retention in the sector have therefore increased.

Expanding on research conducted by NIESR for the DfES, to assist the National Childcare Strategy, NIESR researchers have identified two key problems with current employer approaches: these are in the areas of staff management and retention; and in achieving greater diversity in the childcare workforce.

The importance of staff retention

The overriding policy emphasis on expansion through increased recruitment has been adopted by employers, yet relatively little emphasis is placed on the retention of staff. Many employers seem resigned to high turnover and prepared to shoulder the costs of almost continual recruitment. It is widely believed that turnover has a simple explanation in low pay levels, yet other factors are likely to be important. NIESR found cases of poor management practice in the sector, which may be widespread and contribute to high turnover. Many employers studied had poor systems for induction, staff appraisal, training and development.

Benefits of a diverse workforce

Previous research has identified a number of ways in which the childcare sector would benefit from a more diverse workforce, particularly by employing more men and people from minority ethnic groups. These include wider cultural experience and a less stereotyped view of care-giving. While many employers are committed in principal to greater diversity, they rarely see its achievement as their responsibility. Yet a more diverse workforce might also be more stable and result in higher quality of care. This would meet parents' expectations as well as reduce the costs of turnover.

The researchers suggest that employers might benefit from placing more emphasis on the professional development of childcare workers and in acknowledging their role in increasing workforce diversity. Stability in the childcare workforce might also be improved if local authorities were to take issues of workforce composition, development and stability as seriously as those of recruitment

The findings of the study are published by Heather Rolfe as 'Building a stable workforce: recruitment and retention in the childcare and early years sector' in the January 2005 edition of the journal '*Children and Society*'.

This work was carried out by Heather Rolfe and funded by the DfES. Enquiries to h.rolfe@niesr.ac.uk

MEANS TESTING AND RETIREMENT CHOICES IN BRITAIN AND DENMARK

The recent publication of the Pension Commission's First Report, Pensions: Challenges and Choices, *indicates that private pensions in the UK have not grown to replace a retreating State Pension as the Government had envisaged. If the Government is unable to shunt the burden of an aging population onto the private sector, what is it to do? One option is to expand the size of the welfare state. With this in mind we illustrate what might happen if the UK were to adopt the more generous Danish state pension system.*

The principal innovation of the analysis is the use of a structural model of the labour/leisure and consumption/savings decisions. Analyses of retirement behaviour are commonly based upon econometrically estimated models, which serve to clarify the relations that are exhibited by survey data. Such studies are, however, limited by the data that are available for estimation, and by the complexity of the retirement decision. Most econometric studies consequently report estimates for reduced form models, or for structural models that exclude household savings – neither of which is particularly adequate for inferring the likely behavioural responses of savings and retirement to policy counterfactuals. The current study addresses these issues by using a behaviourally consistent model of savings and labour supply to compare the implications for retirement of alternative transfer systems.

Budgetary effects of transfer systems (per household £ per annum)

£ p.a.	UK	Denmark
20–24	2917	4211
25–29	6753	8058
30–34	9878	11031
35–39	11330	12361
40–44	11545	12732
45–49	11639	12638
50–54	10403	12612
55–59	7935	9311
60–64	567	–1900
65–69	–10565	–14282
70–74	–10485	–13838
75 +	–10275	–13109
Total life-time payment	5564	5569

Taxes paid less benefits received per household

One of the reasons why a comparison of the UK and Danish transfer systems is interesting is that, in terms of overall labour force participation, both countries are seen as success stories from a European perspective. Our analysis, however, suggests that the Danish transfer system implies weak incentives to work for people of all ages, relative to the UK system. Indeed, it is necessary to reduce benefits available to people of working age in Denmark by 25 per cent to obtain labour participation rates that approximate those observed in practice. It is conjectured that Denmark's high labour supply is attributable to a combination of a strong work ethic and a policy of limiting the duration of some benefits and encouraging people to work in other ways.

The two systems have very similar lifetime net payments (see table). However this masks higher payments early in life in Denmark and larger benefits later in life, leading to a situation where, at any discount rate higher than 0.86 per cent p.a., the discounted burden on a young household is higher with the Danish system than with the UK system. We also find that in each age group up to 45, the median voter prefers the UK system to the Danish system. Voters over 45, in contrast, prefer the Danish system. It is of particular note that current life-expectancy now implies – even for a steady-state population – that voters will prefer the Danish system to the UK system. This draws attention to obvious political problems that countries with generous pension systems will need to address during the next few decades.

This work was carried out by James Sefton, Justin van de Ven and Martin Weale and funded by the European Commission. Enquiries to m.weale@niesr.ac.uk

PUBLIC SECTOR OUTPUTS AND PRODUCTIVITY

European countries are investing heavily in Information and Communications Technology (ICT) equipment. Despite some benefits in terms of productivity growth, Europe continues to lag the US in reaping benefits from the new technology. However, the UK looks more like the US than other large EU countries, especially in market services sectors which contain some of the most intensive users of ICT.

These are the conclusions of a recently completed research project, financed by the European Commission Fifth Framework project. The research network considered the impact of ICT on productivity in a number of EU countries using both industry and firm level data. Both sources of information suggest that there appear to be some productivity impacts from investment in ICT in the larger European countries, but there is little evidence to suggest that these impacts are as yet close to those found for the US. The analysis also highlights differences within Europe. The industry analysis suggests that, of the European countries studied, the UK experience is closest to the US, in terms both of its adoption of ICT and the industrial location of productivity benefits. In contrast the research suggests little evidence of a significant impact from ICT on service sectors in the Continental European countries, a finding that is confirmed by the analysis at the firm level, in particular for Germany and Italy.

Growth in labour productivity, and contributions of capital, labour quality and TFP, Market Services,* average percentage points per annum

	US	UK	France	Ger-many
A. 1979–95				
Labour productivity	1.18	2.01	1.97	2.19
of which				
Labour quality	0.27	0.60	0.13	0.21
ICT capital	0.73	0.59	0.25	0.81
Non-ICT capital	0.29	0.86	−0.08	1.09
TFP	−0.11	−0.04	1.67	0.08
B. 1990–2000				
Labour productivity	3.55	3.40	0.84	2.19
of which				
Labour quality	0.15	0.41	0.42	0.05
ICT capital	1.36	1.10	0.39	0.87
Non-ICT capital	0.32	0.19	−0.77	0.56
TFP	1.72	1.70	0.80	0.71

*Excluding health, education, public administration and real estate.

The table shows labour productivity growth in market services and its decomposition into growth in inputs and total factor productivity (TFP) for the US, the UK, France and Germany. It shows results for two time periods, 1979–95 and 1995–2000; the latter period coincides with the well known acceleration in US labour productivity growth which is widely associated with ICT. The results suggest there is a clear division between the US and the UK on the one hand, and the remaining two European countries on the other. In the US and the UK, comparing the two time periods, both labour productivity and TFP growth accelerated in market services. In both, the contributions of ICT capital have become very large, accounting for about one third of labour productivity growth. In contrast, France showed declining growth rates in both labour productivity and TFP growth and very low contributions from ICT investment. Germany performs better than France with no change in labour productivity growth and an acceleration in TFP growth but at nothing like the rates experienced in the US and UK. Neither France nor Germany shows a significant increase in the contribution of ICT capital.

The contribution of increases in the skill levels of the workforce, labour quality in the table, varies considerably across countries but was highest in the UK. In all three European countries, the contributions of traditional non-ICT capital fell across the two time periods, in contrast to a small rise in the US.

**This work has been carried out by Mary O'Mahony and funded by the European Commission. Working papers arising from the EPKE project are available for download from www.niesr.ac.uk/epke/
Enquiries to m.omahony@niesr.ac.uk**

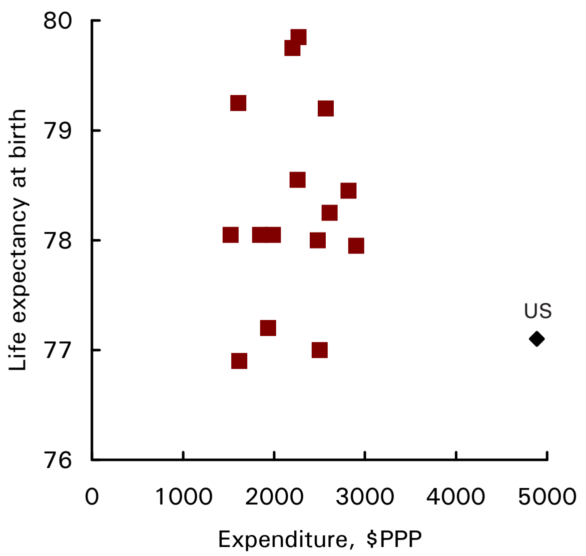
PERFORMANCE IN THE EU HEALTH SECTOR

There is only weak evidence that increased expenditure on health care leads to better outcomes. This is one of the conclusions of a study of the EU health sector. This analysis was conducted as part of the European Competitiveness Report 2004, financed by the European Commission.

The health care sector is one of the most important sectors in any economy. Currently its output accounts for about 7 per cent of GDP in the EU-15, larger than the roughly 5 per cent accounted for by the financial services sector or retail trade sector. Given its significant share of aggregate economic activity, and its consequences for the competitiveness and functioning of the overall economy, it is clear that measuring the performance of the health sector is important. However, evaluating performance in the health sector, as with the public sector in general, is fraught with difficulties.

Health care is a sector where information asymmetries abound, since service provision through public funding or insurance schemes creates a wedge between the final consumers and service providers. Moreover, the output of medical care treatments is difficult to disentangle from other influences on health, such as lifestyle and diet. In the health care sector extraneous influences tend to be very large and often dominate changes in medical care provision.

Health expenditure and life expectancy



Sources: OECD Health Data 2003: WHO European Health for All Database 2004; Health, United States, 2003, National Center for Health Statistics.

The health sector is characterised by a number of market imperfections, including moral hazard, adverse selection and the presence of externalities. Recently, many EU Member States have embarked on reforms in order to promote efficiency and productivity growth. The relationship between technology and performance is critical. While rapid advances in technology are responsible for much of the increase in health expenditure, this must be weighed against the considerable benefits that they produce in terms of improvements in health outcomes.

Both the aggregate indicators and micro studies show some weak evidence that increased expenditure on health care leads to better outcomes, with the evidence somewhat stronger in the case of microeconomic disease-based studies. These suggest that health sector productivity may well be affected by changes to the system of health care provision, with supply-side incentives influencing the use of treatments and technology diffusion. The evidence to date highlights the diversity across countries in outcomes, resource use and adoption of technological changes and hence renders it difficult to draw concrete conclusions. Demand-side incentives, such as cost-sharing, may also influence health system efficiency, although there is little by way of concrete evidence on the impact of such policies.

This work was carried out by Philip Stevens and funded by the European Commission. Enquiries to p.stevens@niesr.ac.uk

E-COMMERCE, ICT SPILLOVERS AND PRODUCTIVITY PERFORMANCE

There is an increasing awareness that ICT capital can affect productivity not only directly, as an extra input into the production process, but also indirectly by making business processes more efficient. The latter includes the creation of networks for trading goods and services and the generation of large spillovers. What are the mechanisms that allow companies to reap greater benefits from investments in ICT and more extensive use of the internet? To answer these questions we have carried out two pieces of empirical research: the analysis of how trading on the internet affects UK enterprises and a comparative study of the impact of ICT spillovers on companies' productivity performance.

The use of computers and websites is very widespread in UK enterprises (around 85 per cent of enterprises had a website in 2001), but only 35 per cent of production companies and 39 per cent of service enterprises are engaged in buying over the internet. The figure for selling over the internet is much lower, 14 and 21 per cent, respectively for production and services. However, the impact on productivity is quite large. Our analysis shows that buying on the internet positively affects productivity in production companies while selling on the internet has a positive impact in both production and services.

When we look at the probability of trading on the internet, we find that firms in the 99th percentile of the probability distribution (more likely to trade on the internet) have over 29 per cent higher productivity compared with firms on the 1st percentile (less likely to trade on the internet). The productivity gains are larger in the service sector than in the production sector, as we can see from the table.

The analysis of the impact of ICT spillovers on companies' productivity performance has a wider perspective as it is based on company account data for the US and four other European countries (UK, Germany, France and Netherlands) for the period 1991–2001. Our results suggest that in the US, both the short-run and the long-run spillover effects are positive and significant, with a larger impact in the long run, particularly in the manufacturing sector. In Europe, the short-run estimates show no significant impact of ICT spillovers. However, when looking at the long-run results, ICT spillovers are positive and significant. This is consistent with existing studies showing that Europe might still be lagging behind the US in terms of getting the full pay-off from investment in ICT capital.

The impact of e-trade on firms' productivity

Percentiles (%) of Pr (e-trade)	% increase in volume of sale
Total	
1% (0.07) vs. 99% (0.89)	29%
25%(0.33) vs 75% (0.61)	10%
Production	
1% (0.10) vs. 99% (0.82)	25%
25%(0.30) vs 75% (0.54)	8%
Services	
1% (0.07) vs. 99% (0.97)	35%
25%(0.47) vs 75% (0.81)	13%

Note: These results are based on two survey data: the Annual Business Enquiry and the e-commerce survey 2001.

This work was carried out by Ana Rincon, Catherine Robinson and Michela Vecchi and funded by the European Commission Fifth Framework Programme. Enquiries to m.vecchi@niesr.ac.uk

The National Institute of Economic and Social Research continued to develop its highly successful programme of events in 2004.

Productivity and Competitiveness

Two events were held during 2004 focusing on Productivity and Competitiveness. In March, NIESR organised an Advanced Institute of Management Conference on *Measuring Performance in the Public Sector*. This conference was sponsored by the ESRC/EPSRC funded Advanced Institute of Management Research (AIM). The conference was focused on the objectives of AIM: to conduct research that will identify actions to enhance the UK's international competitiveness and to raise the scientific quality and international standing of UK research on international competitiveness. Papers and presentations from the conference are available from: www.niesr.ac.uk/aim/aim.htm

In October, a two-day conference was held to mark the end of the European Commission funded 5th framework research network, Employment Prospects in the Knowledge Economy (EPKE). The conference – *Information Technology, Productivity and Growth* – was concerned with the impact of information technology use on productivity, employment and growth. The papers presented empirical evidence based on both firm-level and industry-level data for Europe and the US. Papers and presentations from this conference are available from: www.niesr.ac.uk/epke/

Social Science Week 2004

Social Science Week 2004 took place across the UK in June and was an initiative from the Economic and Social Research Council. The week provided the opportunity to learn about the research currently being undertaken by the UK's leading social scientists and discover how social science research can contribute to better policymaking and, ultimately, a better society. NIESR organised three events as part of this initiative:

Professor Ray Barrell, Senior Research Fellow, presented *the Design of Macro-Economic Policy in Europe* at Bloomberg. In this lunchtime seminar, he argued that economic policy should be designed to ensure high and stable levels of output and low and stable inflation. We thank the ESRC and Bloomberg for sponsoring this seminar.
Presentation and paper: www.niesr.ac.uk/event/bloomberg.pdf

The returns to schooling and job-specific experience: The role of ICT technology was presented by Rebecca Riley, Research Fellow. This lunchtime seminar emphasised the importance of lifetime learning in ameliorating inter-generational inequalities that may result from technical change and also concurred with the notion that the skill-mix influences the rate of technical progress. We are grateful to the ESRC for sponsoring this seminar.
Presentation: www.niesr.ac.uk/event/niesr240604.pdf

Rebecca Riley presenting the lunchtime seminar on the Returns to Schooling and Job-Specific Experience.

NIESR concluded its contribution to the week with a conference: *Recent Developments in the UK Graduate Labour Market*. This conference was sponsored jointly by the ESRC and the Department for Education and Skills and held at the Work Foundation. Ever since the rapid growth in higher education participation in the

Martin Weale (Chair) and Philip Stevens at the 'Recent Developments in the UK Graduate Labour Market' conference organised as part of Social Science Week.

UK between the late 1980s and early 1990s, there has been intense debate about the extent to which the increased supply of graduates is beneficial for the UK economy – and for the individual graduates themselves. This conference presented some of the latest research on this important topic. More information on this conference is available at: www.niesr.ac.uk/event/gradc.htm

The ESRC/NIESR Westminster Economics Forum

The final three seminars in series three, focusing on the topic of Migration, were held in 2004. In January, Professor John Salt from University College London presented a seminar on *International Migration and the Highly Skilled*. This seminar was hosted by the DfES. In March, the Department for Work and Pensions hosted a seminar by Dr Martin Werding from the IFO Institute for Economic Research, on P*ensions and Migration*. To mark the conclusion of series three, a dinner was held in May hosted by Lord Lea of Crondall at the House of Lords. At the pre-dinner presentation, Mr Adair Turner, Chair of the UK Pensions Commission and Vice Chairman, Merrill Lynch Holdings, gave a presentation on *Demography, Economics, and Migration – the Fundamental Social Choices*.

Dr Martin Werding from the IFO Institute for Economic Research, giving his Westminster Economics Forum presentation on Pensions and Migration.

In November, the fourth series of WEF seminars commenced on the topic of *The Provision of Public Services: Quality and Choice*. Dr Philip Stevens, Senior Research Officer, NIESR, gave a presentation on *The Provision of Health Services in Europe: Diversity and Change.* This series will continue in 2005.

Frances Cairncross, CBE, Chair of the Economic and Social Research Council, continues to chair the series and Paul Wallace of *The Economist*, acts as Rapporteur and provides summaries of the talks. Summaries and presentations from previous WEF seminars are available at www.niesr.ac.uk/event/wef.htm

Governors' seminar

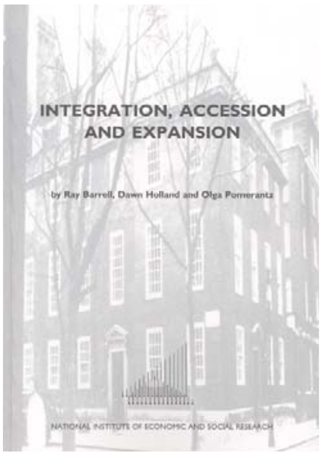
On 14 September, Professor John Ermisch of the Institute of Social and Economic Research, University of Essex, presented a Governors' Seminar on the topic of *The timing of childbearing and the demand for owner-occupied housing*.

To keep informed on forthcoming NIESR events, sign up to receive our free monthly email newsletter service by emailing g.naber@niesr.ac.uk with your name, position and organisation.

Integration, Access and Expansion

by Ray Barrell, Dawn Holland and Olga Pomerantz

In May 2004, ten countries joined the European Union. This book focusses on the eight accession countries from Central and Eastern Europe, which spent the fifteen years prior to EU membership in transition from centrally planned to market economies. The current EU enlargement is no larger, in terms of population, than previous enlargements, but the Union itself has changed, with stronger rules and commitments on the part of its members. This volume draws together a diverse set of issues related to the occasion, providing a context in which to analyse the impact that the expansion is likely to have on both incumbent and acceding members of the EU. Parallels are drawn on previous enlargements where appropriate, and the book discusses in depth the Single Market Programme, the benefits and perils of EMU membership and the Common Agricultural Policy. It also discusses the impact that enlargement is likely to have on capital flows and migration, drawing on a growing body of existing research in these key areas. Policy recommendations are offered throughout the text.



NIESR Occasional Paper no. 57, £20 plus p&p, available from NIESR Publications Department (pub@niesr.ac.uk or telephone 020 7654 1901).
ISBN 0 9545410 1 4

NATIONAL INSTITUTE ECONOMETRIC MODEL

The global model – NiGEM – is widely regarded as one of the world's leading models and is used extensively for forecasting and analytical purposes in both public and private sectors. NiGEM patrons include the Bank of England, the European Central Bank, the Economic Planning Agency of Japan and many other European Central Banks and Finance Ministries.

The 1500-equation model contains individual models for all OECD countries within a framework which embraces all major world economies. NiGEM's flexible design supplies users with the freedom to produce their own forecasts and simulations. Subscribers to NiGEM are provided with a comprehensive support and training package including regular user's meetings, training targeted to their areas of interest and a model-dedicated web site.

Trial copies of NiGEM, and further information, can be obtained from the contacts listed on the inside back cover.

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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 Grant Naber at g.naber@niesr.ac.uk or by telephone on 020 7654 1901.

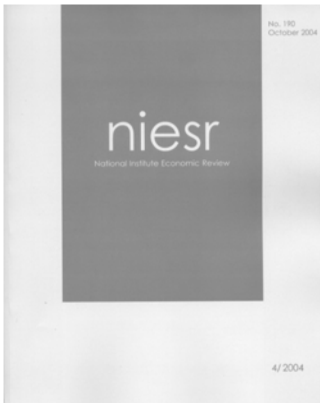
NATIONAL INSTITUTE ECONOMIC REVIEW

Sage Publications has continued to publish the National Institute Economic Review throughout the year. Marketing and subscription activity are reported regularly to the Institute's Council of Management.

Articles which appeared during the year were as follows:

No. 187 (January)
Productivity impacts and spillovers from foreign ownership in the United Kingdom
Richard Harris and Catherine Robinson
The zero interest rate floor (ZIF) and its implications for monetary policy in Japan
Benjamin Hunt and Douglas Laxton
The effects of Euro Area interest rate changes: evidence from macroeconomic models
Peter McAdam and Julian Morgan

No. 188 (April)
Simulating household savings and labour supply: an application of dynamic programming
James Sefton and Justin van de Ven
The effects of an increase in petrol excise tax: the case of New Zealand households
John Creedy
Economic performance in France, Germany and the United Kingdom: 1997–2002
Robert Metz, Rebecca Riley and Martin Weale
The volatility of the output gap in the G7
Ray Barrell and Sylvia Gottschalk



No. 189 (July)
An assessment of Bank of England and National Institute inflation forecast uncertainties
Kenneth F. Wallis
Britain's productivity gap with the United States and Europe: a historical perspective
Stephen Broadberry and Mary O'Mahony
The pact is dead: long live the pact
Iain Begg and Waltraud Schelkle
Social networks: their role in access to financial services in Britain
Pamela Meadows, Paul Ormerod and William Cook

No. 190 (October)
The UK graduate labour market: introduction
Geoff Mason
Is mass higher education working? Evidence from the labour market experiences of recent graduates
Peter Elias and Kate Purcell
The widening socio-economic gap in UK higher education
Fernando Galindo-Rueda, Oscar Marcenaro-Gutierrez and Anna Vignoles
The rate of return to teaching: how does it compare to other graduate jobs?
Peter Dolton and Tsung-Ping Chung
Academic salaries in the UK and US
Philip Andrew Stevens

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.

226. FDI penetration and net trade in the EU accession countries
Dawn Holland and Olga Pomerantz

227. Taxation, reranking and equivalence scales
Justin van de Ven and John Creedy

228. Demand based equivalence scale estimates for Australia and the UK
Justin van de Ven

229. Estimating equivalence scales for tax and benefits systems
John Muellbauer and Justin van de Ven

230. The volatility of the output gap in the G7
Ray Barrell and Sylvia Gottschalk

231. Policy targeting with model-consistent expectations
Martin Weale

232. Consumption, financial and real wealth in the G-5
Ray Barrell and E. Philip Davis

233. Lazy students? A study of student time use
Philip Stevens and Martin Weale

234. Information and communication technology (ICT) adoption and utilisation, skill constraints and firm level performance: evidence from UK benchmarking surveys
John Forth and Geoff Mason

235. The impact of high-level skill shortages on firm-level performance: evidence from the UK technical graduates employers survey
John Forth and Geoff Mason

236. Information and communication technology (ICT) skill gaps and company-level performance: evidence from the ICT Professionals Survey 2000–01
John Forth and Geoff Mason

237. International production relocation and exports of services
Nigel Pain and Desirée van Welsum

238. Is there a trade-off between inflation variability and output-gap variability in the EMU countries?
Philip Arestis and Kostas Mouratidis

239. Accounting for background variables in stochastic frontier analysis
Philip Andrew Stevens

240. Skill shortages and firms' employment behaviour
Philip Andrew Stevens

241. Testing the pooling assumption in an industry panel of R&D investment: what do we learn?
Bettina Becker and Stephen G. Hall

242. Oil prices and the world economy
Ray Barrell and Olga Pomerantz

243. Costs of financial instability, household-sector balance sheets and consumption
Ray Barrell, E. Philip Davis and Olga Pomerantz

244. Does means-testing exacerbate early retirement?
James Sefton and Justin van de Ven

245. The dynamic impact of ICT spillovers on companies' productivity performance
Ana Rincon and Michela Vecchi

246. National Saving and the Stability and Growth Pact
Martin Weale

247. Financial liberalisation, consumption and wealth effects in 7 OECD countries
Ray Barrell and E. Philip Davis

248. 'Optimal' combination of density forecasts
Stephen G. Hall and James Mitchell

249. Density forecast combination
Stephen G. Hall and James Mitchell

OTHER PUBLISHED ARTICLES AND PAPERS PRESENTED

Arestis, P. and Mouratidis, K., 'Credibility of the EMS interest rate policies: a Markov regime-switching approach', *The Manchester School*, 72, pp. 1–23.

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—, 'Economist's view', *Financial Times*, 3 December.

Papers presented

Barrell, R., 'The design of macro economic policy in Europe', ESRC seminar, Bloombergs, June.
Barrell, R. and Dees, S., 'World trade and global integration in production processes: a re-assessment of import demand equations', European Central Bank, June.
Barrell, R. and Gottschalk, S., 'The volatility of the output gap in the G7', Royal Economic Society Conference , Swansea, April; EEA meetings, Madrid, August.
—, 'Openness, financial integration and the decline in output volatility since 1970', ESRC Emerging Macro Economy conference, Oxford, June.
Barrell, R., Gottschalk, S. and Hall, S.G., 'Foreign direct investment and exchange rate uncertainty in imperfectly competitive industries', Royal Economic Society Conference, Swansea, April.

Barrell, R. and Holland, D., 'Structural models and structural shocks in accession', ECB meeting of the European Business Cycle Network, Austrian Central Bank, Vienna, April.
Barrell, R. and Pomerantz, O., 'Oil prices and the world economy', Austrian Central Bank, July and United Nations Project LINK, November.
Forth, J. and Mason, G., 'The impact of high-level skill shortages on firm-level performance: evidence from the UK Technical Graduates Employers Survey', Conference of European Association of Labour Economists, Lisbon, September.
Kirby, S. and Riley, R., 'The returns to schooling and job-specific experience: the role of ICT', annual conference of the Royal Economic Society, Swansea, Wales, April and NIESR lunch-time seminar as part of Social Science Week, 2004.
Meadows, P., 'The economic contribution of older people', Age Concern England Annual Conference, February.
—, 'Recruitment and retention of childcare workers', Wandsworth Early Years Development and Childcare Partnership, March.
— , 'The national evaluation of Sure Start', Government Economic Service Annual Conference, July.
Mitchell, J., Smith, R.J. and Weale, M., 'Aggregate versus disaggregate survey-based indicators of economic activity', 27th CIRET Conference, Warsaw, September.
O'Mahony, M. and Stevens, P. A., 'International comparisons of performance in the provision of public services: outcome based measures for education', Royal Economic Society Annual Conference, University of Swansea.
Rincon, A., Robinson, C. and Vecchi, M., 'The productivity impact of e-commerce in the UK, 2001: evidence from microdata', conference on Information Technology, Productivity and Growth, London, October.
Robinson, C., 'The impact of foreign direct investment on UK manufacturing, 1974–1995', Office for National Statistics, workshop on Foreign Direct Investment using the Annual Respondents Database, April.
—, (with Mary O'Mahony and Michela Vecchi), 'The impact of ICT on the demand for skilled labour: a cross-country comparison', Royal Economics Society Annual Conference, April.
Stevens, P.A., 'Academic salaries in the UK and US', NIESR, DfES and ESRC Conference on Recent Developments in the UK Graduate Labour Market, June.
—, 'Skill shortages and firms' employment behaviour', European Economic Association Annual Conference, Madrid, August.
Stevens, P.A. and Weale, M.R., 'Student labour supply', NIESR, DfES and ESRC Conference on Recent Developments in the UK Graduate Labour Market, June.
Weale, M.R., 'Les trois grands de l'Europe: résultats economiques en France, en Allemagne et au Royaume-Uni', Ministry of Finance, Vincennes, March.
—, 'Index numbers: the search for the philosopher's stone', Office for National Statistics, June.
—, 'Coherent use of extraneous information in the National Accounts', Office for National Statistics, June.
—, 'UK productivity: its failings and its outlook', Society of Business Economists, June.
—, 'Quantification of qualitative firm-level data', Centre for Growth and Business Cycle Research, Manchester, July.
—, 'Means testing and retirement choices in Europe: a comparison of the British and Danish systems', British Association for the Advancement of Science, Exeter, September.
—, 'Demographic uncertainty', HM Treasury, October.
—, 'Are we saving enough', Bank of England, December.
—, 'Real income and its implications', New College, Oxford.

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	2003–4	*2002–3*	*2001–2002*
	£	*£*	*£*
INCOME			
Research	1,340,959	1,497,214	*1,527,578*
Publications	824,594	780,306	*536,045*
Corporate supporters	67,835	88,422	*109,755*
Investments and interest	120,023	133,730	*117,327*
Total income	**2,353,711**	**2,500,172**	***2,290,705***
EXPENDITURE			
Research	1,353,277	1,682,776	*1,615,649*
Publications	529,158	378,695	*256,106*
Premises	95,216	53,722	*60,064*
Administration and general services	384,491	256,366	*294,719*
Total expenditure	**2,362,143**	**2,401,558**	***2,226,538***
OPERATING SURPLUS/(DEFICIT)	**(8,432)**	**98,613**	***64,167***

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