

CONTENTS

page

DIRECTOR'S REPORT

2005 in brief <i>by Gill Clisham</i>	4
The NiGEM model	5

RESEARCH IN 2005

Employment relations <i>by John Forth</i>	6
The performance of economic forecasts <i>by Simon Kirby</i>	7
Raising sector skill levels in the UK <i>by Geoff Mason</i>	8
Literacy and numeracy training for adults <i>by Pamela Meadows and Hilary Metcalf</i>	9
The effect of uncertainty on economic behaviour <i>by James Mitchell and Martin Weale</i>	10
Mental health and stress in the workplace <i>by Heather Rolfe</i>	11
Means testing retirement benefits <i>by James Sefton, Justin van de Ven and Martin Weale</i>	12
The job satisfaction and turnover of English academics <i>by Philip Stevens</i>	13
Two recent international comparisons of schooling <i>by Sig Prais</i>	14
Measurement of output of public services <i>by Martin Weale</i>	16
Consumption, wealth and financial markets <i>by Ray Barrell</i>	17

PUBLICISING INSTITUTE RESEARCH

Our events programme 2005	18
<i>National Institute Economic Review</i>	20
National Institute Discussion Papers and Monthly GDP	21
Other published reports and articles	22
Papers presented	24

SUPPORTERS OF THE INSTITUTE

Corporate membership and other private financial supporters	26
Research supporters	27

FINANCIAL SUMMARY

28

PEOPLE AT THE INSTITUTE

Institute governors	29
Institute staff and visitors	30

DIRECTOR'S REPORT

I am delighted to be able to report that the National Institute continues to generate funding from a variety of sources – private and public, national and international. It is important to maintain this diversity of funding which helps NIESR to retain its much-valued independence. Of course charitable foundations and our corporate supporters greatly help us to achieve this goal; the help of the latter towards the costs of producing our regular forecasts is greatly appreciated. Nevertheless, it is hard to see that a lively programme of policy-relevant research can be carried out in an Institute which maintains a durable presence on the research scene without recourse to public money. This comes to the Institute in two forms. First of all, the public sector, like charitable foundations, has various mechanisms for supporting research which is believed to add to overall knowledge even if it does not have an immediate application. Secondly, the public sector has important specific research needs and we would be disappointed if we were not considered an important provider of high quality academic research to this sector. Research by its nature is a public good and, consistent with its charitable status, the Institute has a policy that whenever possible its research findings should be available in the public domain. If our research were provided primarily to commercial organisations then we would become a consultancy rather than a research institute and would not achieve this goal.

Nevertheless, it is many years since the National Institute last received any direct allocation of funds from the Government. Its receipts of public money are now achieved through competitive processes in various forms. Different sources of funds have different competitive processes associated with them. The Economic and Social Research Council and the European Commission Sixth Framework Programme allocate money on the basis of proposals made by bidders in areas often largely of their own choosing. Government

departments, on the other hand, may want specific pieces of work to be carried out and invite tenders for them. In other cases the National Institute participates in supply frameworks set up by government departments. These allow for greater flexibility in procurement than does the tender process. We also interact with various agencies which the Government has set up, carrying out research contracts for them.

All senior staff at the Institute are actively involved in fund raising, both in responding to invitations to tender and in identifying areas where the research that they would like to carry out is likely to be of interest to potential sponsors. Thus the process of research funding is very interactive. On the one hand, the National Institute is responsive in that it is providing research for which there is a perceived need. But, at the same time, it is the job of our researchers to explain to users of research how we can help them address policy problems effectively.

Our macroeconomic modelling team, which maintains the Global Econometric Model, draws its support from an international network of users in both the public and private sectors. This can only function successfully if it meets user needs. At the same time, the advantage of producing a tool of this type in an academic environment lies in the fact that the model has a theoretical coherence allowing, for example, consistent treatment of expectational effects.

This diversity of funding has obvious advantages. The Institute is not completely dependent on any single source of finance and is therefore not at great risk of substantial damage as a result of a change of policy by any single supporter. The broad split of our funding in 2004–5 was 37 per cent UK Government Departments, 11 per cent other UK public sector, 27 per cent European Commission, 15 per cent private sector including charitable trusts and corporate donations. We

recorded a surplus of £8,000 for the year as a whole and I am pleased to say that, although we have had some unexpected expenses this year, the underlying financial position of the Institute remains sound.

As with any organisation, the National Institute faces the task of ensuring that it can retain its staff. The Institute has just marked the fiftieth anniversary of Sig Prais starting work here. Dr Prais is the National Institute's most distinguished staff member and has made many outstanding contributions to economics and statistics. He has studied social mobility, expenditure patterns, and the growth of firms, to identify just a few of his areas of work. In recent years he has focused on questions of measuring and improving the quality of education in Britain, paying particular importance to maths teaching in primary schools.

At the same time, there are always staff who feel that they would like to continue their careers in different environments. I offer my particular congratulations to Kostas Mouratidis on taking up a lectureship at the University of Wales and to Lubomir Schmidt, who leaves us having submitted his PhD at Imperial College.



New staff in 2005: left to right Brigid O'Leary, Ehsan Khoman and Kyra Kellawan with Martin Weale, Director.

There are a number of areas where we have contributed to the policy debate, and here I would like to draw attention to just three. While forecasts are just forecasts and subject to errors of all sorts, last year I reported my satisfaction that our pessimistic views on the public finances in the medium term had become mainstream. This year the Treasury has acknowledged the optimistic bent of its previous forecasts, and announced some extra taxation. In the short term its projections have moved much more closely in line with ours while in the longer term it is now relying on slow growth in public spending to close the fiscal shortfall which we identified three years ago.

The Turner report on pension reform focused on another important aspect of public policy. Work by the National Institute fed into a number of aspects of this, looking at the implications of means testing for saving and retirement behaviour (p. 12) and also addressing the aggregate savings gap and the implications for the economy of more saving.

Our work on measuring health service output (p. 16) has interacted with the aftermath of the Atkinson report on measuring output in the public sector. This has led to a valuable debate clarifying some of the key provisions in Atkinson's proposals.

This report contains more details on these and other topics which have occupied us in 2005. I am sure you will agree that they describe a year well spent.

2005 IN BRIEF

During 2005 NIESR's activities continued to provide an effective public platform for our research. In particular, the content of the *National Institute Economic Review* attracted a considerable amount of press coverage from its commentaries on oil prices, pensions policy and the Labour Government's economic record. The latter caused great interest as we looked at the performance of the Government in the run-up to the general election. As a completely politically-independent organisation, our analysis provided a balanced view on a topic which can all too often be subject to party political manipulation. Economics commentators reported:

The Independent, 29/04/05
National Institute puts Labour top of the class

Labour has won a ringing endorsement from a normally critical independent think-tank that has hailed its economic record as "first class". The Government's track record since 1997 has been "extremely commendable", the National Institute of Economic and Social Research says today.

Financial Times, 29/04/05
Brown's performance makes the grade

The economic record of the Labour Government is "very satisfactory", according to the National Institute of Economic and Social Research, with stable growth and inflation marred only by sluggish productivity growth and a low rate of savings.

But our impartiality means that we do not shy away from being critical of policy when we believe it to be justified. The *Pre-Budget Report* in December revealed a reduction in the Government's forecast for economic growth but we were already warning of this problem earlier in the year.

Guardian News, 28/10/05 01:54
Brown faces £10bn black hole and economic slowdown, warns think-tank

Gordon Brown's economic predictions were dealt another blow yesterday when a leading think-tank forecast a £10bn black hole in public finances and said economic growth this year would be the weakest for 10 years.

However, we have not only been responsible for disseminating our own research. The Westminster Economics Forum and The Sir Richard Stone Lecture Series provide the opportunity to arrange seminars featuring speakers from the wider social science community and from policymaking. We have been very fortunate in the past year to have attracted some of the UK's leading practitioners in their respective fields to speak at these seminars. We are grateful to all those who contributed and also to the Bank of England, Cambridge University Press and the ESRC with whom we collaborated on these events.

2005 has seen a number of changes on the Institute's Council of Management. Sir Michael Scholar, CBE, and Sir Brian Corby retired from Council at the AGM in November – the latter having held the post of President of NIESR for around nine years until 2003. We are indebted to both of them for their support of our organisation and in particular to Sir Brian for his work on the Council over many years. We are delighted to report however that the following have agreed to join the Council: Kate Barker, member of the Monetary Policy Committee, Professor John Ermisch, FBA, Institute for Social and Economic Research, University of Essex and Sir Andrew Turnbull, former Secretary of the Cabinet and head of the Home Civil Service. Our new Council members help to demonstrate our desire to combine effectively policy influence and academic excellence and we look forward to benefiting from their expert guidance in the years to come.

THE NiGEM MODEL

NiGEM is an estimated, theoretically coherent forward-looking model, where nominal rigidities slow the process of adjustment to external events. The model is designed as a tool for both practical forecasting and for academically defensible policy analysis. It covers all OECD countries, including models for Mexico, South Korea, China, Russia, Hong Kong, Taiwan, Brazil, Australia and New Zealand. Group models for Latin America, Africa, East Asia and Developing Europe and OPEC are also available.

The model is used internally in the Institute quarterly forecast published in the *National Institute Economic Review*. Externally, it is used by a group of 50 model subscribers, mainly in the policy community, including the ECB, the central banks of the UK, France, Italy, Netherlands, Spain, Belgium, Denmark, Portugal and Sweden, and a number of finance ministries as well as the ESRI in Japan. These bodies regularly use the model in their publications. Usage both in the Institute and outside is divided about equally between forecast related tasks and policy analysis. It also forms the core of the European Commission financed European Forecasting Network in EUROFRAME.

Users subscribe to the model, which costs £9000 per annum for a basic suite, with many other

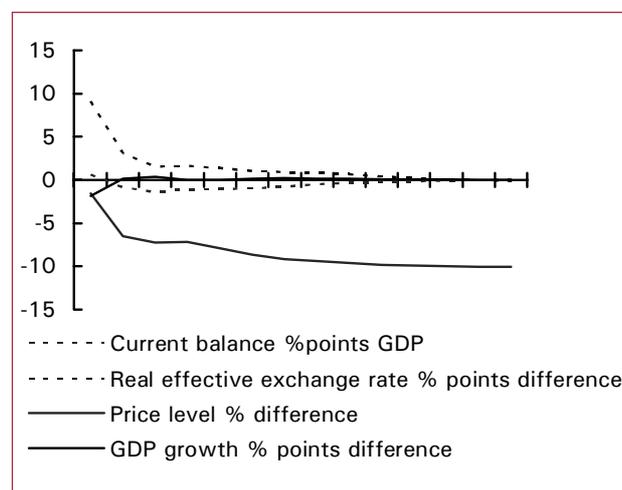
packages available, including site licences. The model framework can be used by anyone to build a bespoke model or to change the existing structure. Details of user group membership are available from Ray Barrell, Ian Hurst or Gill Clisham.

All country models contain the determinants of domestic demand, export and import volumes, GDP and prices, as well as current external accounts and net external assets. Interest rates reaction functions and forward looking exchange rates are available for all the individual countries. There are also links between countries in their financial markets via the structure and composition of wealth, emphasising the role and origin of foreign assets and liabilities. The model has complete demand and supply sides and there is an extensive monetary and financial sector.

Recent policy analyses include an evaluation of the impact of US proposals for a Chinese revaluation. Our modelling of the Chinese economy suggests that it is very responsive to shocks, and a revaluation would lead to rapid deflation. The real exchange rate would therefore return to where it had been previously. Hence we suggested that realignment was a solution to the overheating of the Chinese economy, but that it would not help improve the US current account except in the short run.

Results from the model on the impacts of oil prices on the UK economy have also received widespread attention. We have shown that oil price increases are likely to have less impact now than in the 1970s, in part because we use less oil, in part because the economy is more flexible, and also because inflation expectations are well anchored by the independence of the Bank of England.

Impacts of a Chinese realignment (10% change in dollar rate)



For details of how to subscribe to NiGEM please contact Ian Hurst, Ray Barrell or Gill Clisham in the first instance.

EMPLOYMENT RELATIONS

There is perennial interest in the nature of work. But increased product market competition, changes in the labour market and reforms to employment relations legislation have all prompted questions about how employers and employees are adapting in the current environment. The Workplace Employment Relations Survey (WERS) series has comprehensively monitored the state of employment relations over the past two decades. The initial findings from the latest survey, conducted in 2004, were published in July.

Many aspects of employment relations had not changed to any substantial degree since the previous WERS survey in 1998: the extent of numerical flexibility; the incidence of grievance and disciplinary procedures; the rate of industrial action; and the under-representation of women in managerial posts; and the incidence of 'high involvement' methods of work organisation, such as team-working, functional flexibility and problem-solving groups.

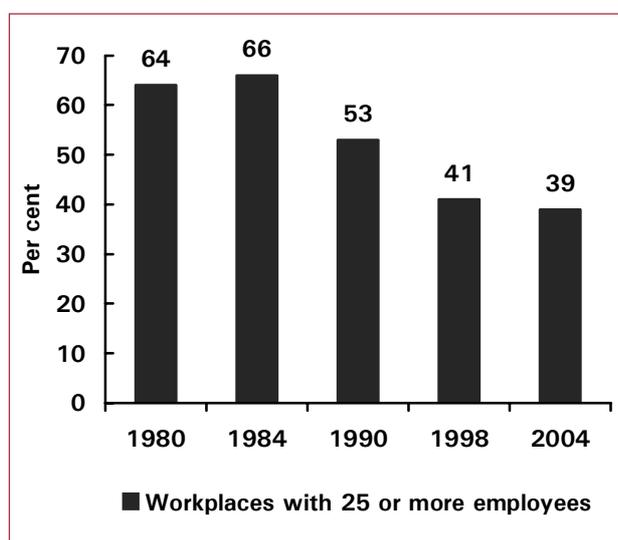
In other areas, the results showed some significant changes. Employees were less likely to be union members than in 1998; workplaces were less likely to recognise unions for bargaining over pay and conditions; and fewer employees had their pay set through union negotiations. Even so,

among all but the smallest workplaces, the rate of decline appeared to have slowed from earlier periods (see figure). Whilst representative forms of employee voice had declined, there had been some growth in direct forms of communication between management and employees. These trends are of particular interest because of the introduction of new rights for employees to be informed and consulted about developments at their workplace.

The survey recorded an increase in the availability of flexible working arrangements, including home-working, term-time only working, flexi-time and job-sharing. Together with increases in the incidence of paid paternity leave and special paid leave, and increased managerial understanding of employees' responsibilities outside work, it seems that employers are taking on board the need to help employees effect a balance between their working and family lives. However, employees did not perceive such a change in employer attitudes, and were often unaware of what was available to them.

Finally, managers appeared more sanguine about the state of employment relations than they had been in 1998. But although overt workplace conflict had remained low, and managers' perceptions of management-employee relations had improved, there was little change in employees' views over the period.

Trade union recognition



WERS is sponsored by the Department of Trade and Industry, the Advisory Conciliation and Arbitration Service, the Economic and Social Research Council and the Policy Studies Institute. John Forth has contributed to the design, management and analysis of the survey, with funds from the DTI. Enquiries to j.forth@niesr.ac.uk

THE PERFORMANCE OF ECONOMIC FORECASTS

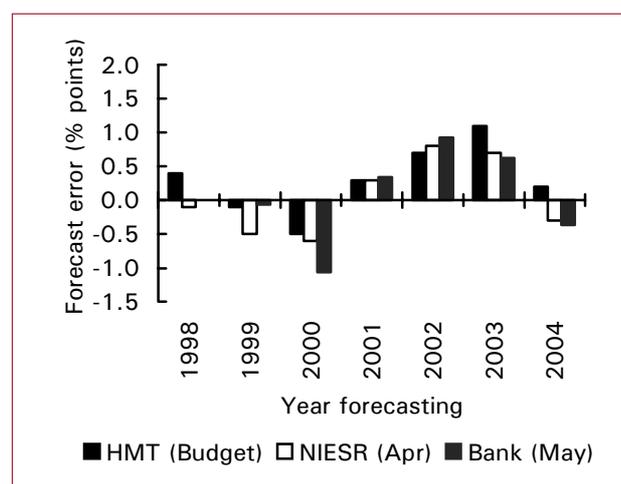
The National Institute of Economic and Social Research reviews its forecast performance for output and inflation in every quarterly Review. It also produces a more comprehensive analysis at regular intervals. However, these evaluations are undertaken on the NIESR's forecasts alone. To improve the analysis we have carried out research to compare, since 1997, the National Institute's forecasting performance with that of HM Treasury and the Bank of England.

We looked at forecasts of output growth, inflation, the government current surplus and public sector borrowing undertaken over the past eight years by NIESR, HM Treasury and the Bank of England (for output and inflation only). We compared these forecasts to the initial estimate of the data released, as these are the data that will induce policymakers to change their actions. For each we calculated a number of statistics to aid evaluation.

Comparing the forecasts of various institutions is always fraught with difficulty, especially over such short time periods. A single forecast could plausibly distort the comparison over such a small time frame. Probably the least sensitive to this distortion is the 'score' (who is nearer).

The figure below shows the forecast errors for

Spring forecast errors for output in the following year

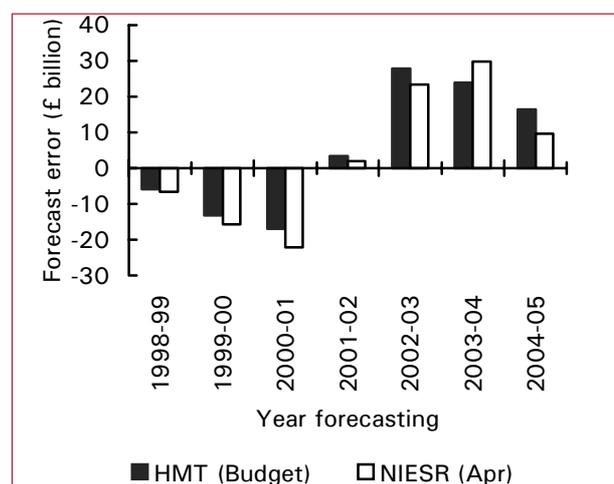


This work was undertaken by Ray Barrell, Simon Kirby and Robert Metz. Enquiries to r.barrell@niesr.ac.uk or s.kirby@niesr.ac.uk.

output growth in the following year produced in the spring by HM Treasury, NIESR and the Bank of England. Although the Treasury has a better score for output in budgets, alternative statistical tests muddy this picture. The Bank of England has a worse forecasting record for output in the spring than either the Treasury or the National Institute. This is borne out by the score and alternative statistical tests. The Treasury's 'better' performance is concentrated in the first half of our sample. Over the last three years that we consider, the NIESR forecasts for output growth have been marginally better than those of either the Bank or the Treasury.

The target indicator for government policy is the current budget. The second figure shows the forecast errors for the government current budget in forecasts for the forthcoming fiscal year produced in April for HM Treasury and NIESR. Although the Treasury has a higher overall score than NIESR, for three of the past four years NIESR has had a 'better' forecasting record. It is clear from the figure that the forecast errors are large, and neither the National Institute nor HM Treasury can be content with their forecasting record for the public sector finances.

Forecast errors in April for the forthcoming year: government current budget



RAISING SECTOR SKILL LEVELS IN THE UK

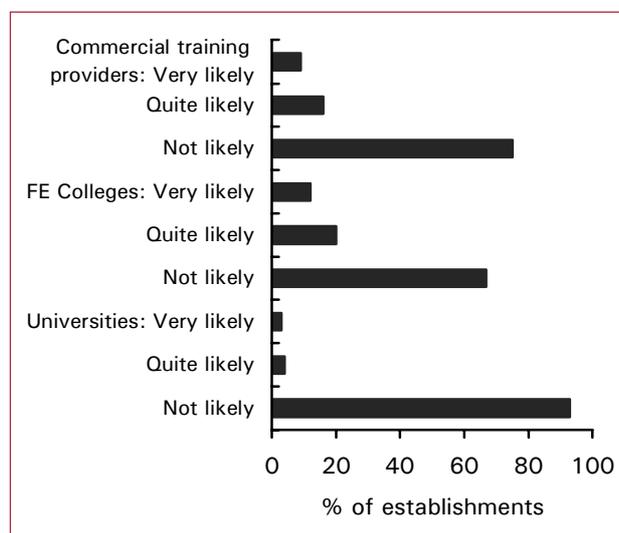
Further education (FE) colleges and commercial training providers in the UK are frequently criticised for not responding sufficiently to local employers' demand for higher levels of workforce skill. However, to date there has been very little evidence on the extent and nature of any mismatches between employers' training requirements and local vocational and educational training (VET) provision.

NIESR explored this issue through an innovative methodology which proceeded in two stages:

- A telephone survey of establishments in selected sectors and regions, designed to capture in finer detail than hitherto available the extent and nature of employers' current skill improvement and updating needs.
- Interviews with staff in colleges and training providers in the same regions to discuss the ability of these organisations to cater to local employers' training requirements which were revealed in the survey.

The survey covered employers in four sectors which were chosen for diversity (maintenance and repair of motor vehicles; telecommunications services; mechanical engineering; and textiles and clothing). In all four sectors large majorities of

Likelihood of using different types of external training provider for core groups of employees in next 12 months (% of establishments in survey of employers)



establishments reported that the skills needed by core groups of employees were expected to change over the next twelve months. The need to upgrade skills related, firstly, to adult employees and, secondly, to gaps in skills which could be filled through reasonably short courses of training.

However, the majority of FE college departments and other training providers funded by public money were poorly placed to deliver much of the training that is needed. On the contrary, present funding systems (administered primarily by the Learning and Skills Council) motivate colleges and training providers to focus their efforts on 16–20 year olds at the beginning of their careers and on provision of courses, usually twelve months or more in duration, that lead to accredited qualifications. Where colleges and training providers do have relationships with local employers, these tend to be confined to large companies. There is reluctance to invest time in developing relationships with small and medium-sized enterprises (SMEs) who could only offer small numbers of trainees and who are seen as unlikely to be willing to pay the full costs of training in any event.

The study therefore cast doubt on whether the right balance has been achieved between beginning-of-career training and adult continuing and updating training in the British VET system. These findings – along with positive recommendations for improved local provision of updating training in the future – have been disseminated to Sector Skills Councils and to policymakers involved in developing the new National Employer Training Programme.

This research was carried out by Geoff Mason, Matt Osborne and Ana Rincon-Aznar. It was supported by the Sector Skills Development Agency (SSDA). Enquiries to g.mason@niesr.ac.uk.

LITERACY AND NUMERACY TRAINING FOR ADULTS

NIESR is conducting a longitudinal evaluation of the wider effects of the Skills for Life programme, funded by the Department for Education and Skills (DfES). The programme provides free literacy and numeracy training to adults who do not have Level 2 qualifications in literacy and numeracy. The effects examined include employment, employability, health, educational contact with learners' own children, participation in society and happiness.

Whilst it is well-known that literacy and numeracy affect employment, there is little robust evidence on the effects of acquiring literacy and numeracy skills as an adult, nor of the effects of literacy and numeracy training programmes. Our evaluation is unique in providing robust evidence on the effects of participating in a literacy or numeracy course at college through using a longitudinal, matched comparison group design. Learners and the comparison group are surveyed over four years, at annual intervals. The longitudinal survey allows identification of changes in outcomes for both course participants and for a similar group of non-course participants. Analysis uses a difference in differences approach to standardise for unobserved differences. The research is unusual in (a) having a large sample, (b) having a comparison group, and (c) having

This research is funded by the Department for Education and Skills. Enquiries to h.metcalfe@niesr.ac.uk.

measures for both groups at different points in time. The approach minimises the likelihood of reporting outcomes that are not genuinely the result of having done the literacy or numeracy training.

To date, we have analysed effects after one year. We find no effect on employment (using a range of indicators), earnings or economic activity. However, participation on courses appeared to improve factors affecting employability. Self-esteem, attitudes towards education and training, and employment commitment, improved significantly more amongst course participants compared with non-participants, whilst long-term illness or disability declined. We conclude that literacy and numeracy training for adults increases employability in the short term, but that it remains to be seen whether these effects are transitory or permanent and whether they translate over time into improved employment. Initial analysis of the third wave suggests a continuing effect, with increased earnings amongst learners and a greater likelihood of participating in other education and training.

Skills for Life: significant employability outcomes after one year, aged 19 and over

	Outcome	Learners' value	Non-learners' value	Difference
Employment commitment	Increase in employment commitment (proportion of sample)	41.5%	36.8%	4.6%
Basic skills: self-perceived improvement	Maths (proportion of sample citing improvement)	58.9%	19.7%	39.2%
	Literacy (proportion of sample citing improvement)	76.4%	41.9%	34.5%
	Literacy and/or numeracy (proportion of sample citing improvement)	88.1%	53.3%	34.8%
Self-esteem	Change in self-esteem index (scale -20 to +20)	0.501	-0.131	0.632
	Deterioration in self-esteem (proportion of sample)	40.2%	44.7%	-4.6%
Education commitment index	Change in index (scale -16 to +16)	0.038	-0.899	0.937
	Increase in commitment (proportion of sample)	42.6%	30.5%	12.1%
	Decrease in commitment (proportion of sample)	39.4%	53.0%	-13.6%
Health	Lost a longstanding illness or disability (proportion of sample losing)	12.6%	8.5%	4.1%

Note: All significant at 5%.

THE EFFECT OF UNCERTAINTY ON ECONOMIC BEHAVIOUR

This new ESRC funded project exploits unique, and hitherto neglected, firm-level panel data on subjective measures of uncertainty from the Confederation of British Industry's Industrial Trends Survey. This data-set is unique in offering firm-specific information on uncertainty, although the firm's responses are categorical, indicating whether they are uncertain or not, rather than continuous probability distributions. This CBI survey has the advantage also of offering information on firms' investment decisions and their track records in forecasting output growth and inflation. This facilitates study of uncertainty and its implications for individual firms free from possible aggregation bias.

A new means of extracting a quantitative measure of uncertainty from qualitative panel survey data is developed. This involves an extension of the 'probability method' of quantification. This measure of uncertainty is plotted in the figure below. Alternative measures of uncertainty, such as those based on the dispersion of macroeconomic forecasts, GARCH estimates and 'market'-based estimates, are evaluated according to their ability to match the survey-based estimates. The comparison reveals that only the market-based measure, extracted from option price data, also

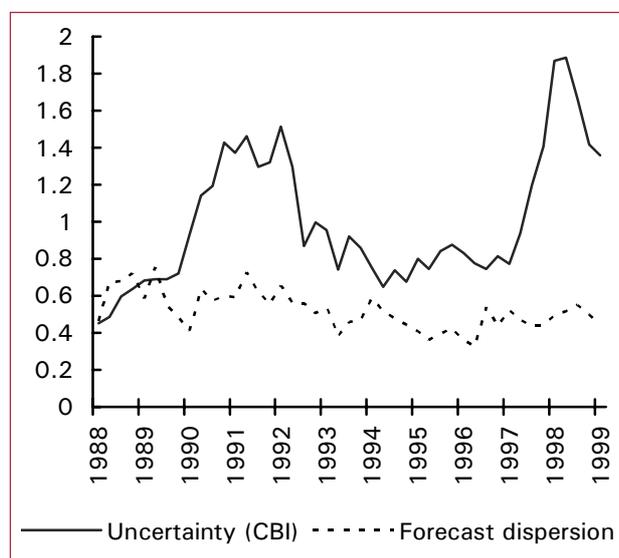
picks up the perceived rise in uncertainty in the late 1990s at the time of the Asian currency crises.

The project then seeks to study further uncertainty and its implications for individual firms. Using statistical methods appropriate for the analysis of both categorical and continuous data, firms' errors, identified by comparing their retrospective and prospective answers – in forecasting their own output growth – are found to help explain their uncertainty. Rises in macroeconomic uncertainty, defined from macroeconomic forecasting errors, are also found to result in increased firm-level uncertainty. Firm-level uncertainty is seen to have a strong autoregressive component.

The effect of rises in micro- and macroeconomic uncertainty on firms' investment plans is then investigated. This is important given the ambiguous predictions of macroeconomic theory about the effects on investment of a rise in uncertainty.

It is found that, on average across firms, rises in both micro- and macroeconomic uncertainty are associated with falls in investment. There is, however, considerable heterogeneity across firms.

Uncertainty as extracted from the CBI panel data-set



This work was supported by the Economic and Social Research Council. Enquiries to j.mitchell@niesr.ac.uk.

MENTAL HEALTH AND STRESS IN THE WORKPLACE

It has been estimated that between 20 and 30 per cent of employees will experience mental health problems in the space of one year and that anxiety and stress conditions account for a significant proportion of working days lost through mental ill-health. The policies and practices of employers are believed to have serious implications for people with mental health problems; they are likely to leave employment or be dismissed, and this may begin a downward economic and social spiral for some people and their families. Despite this, existing research on employers' practices has tended to focus on recruitment of people with mental health problems rather than retention, on policy rather than on practice, and to focus on the more serious mental health problems rather than 'common' mental health problems such as depression and anxiety.

The NIESR study was carried out to help fill these gaps through qualitative research, across a range of industries, on how employers address stress and mental health and what they do when their employees experience various types of mental health problems at work. It aimed to explore employers' perceptions of mental health and stress and to examine policy and practice.

The main findings of the study are as follows:

- Stress is seen as a key issue by employers, but mental health is not.

The research was funded by the Nuffield Foundation and carried out by Heather Rolfe and Jim Foreman, with expert advice from Professor Andre Tylee of the Institute of Psychiatry. Enquiries to h.rolfe@niesr.ac.uk.

- Many employers believe that stress and common mental health problems have their roots in the personal and domestic lives of employees and are concerned to distinguish home and work factors.
- Employers' principal concern with stress and mental health is with levels of sickness absence. Concerns about possible legal action determine both policy and practice.
- The management of stress and mental health depends on the skills of line managers and these are sometimes poorly equipped, resulting in poor treatment of people with such problems. The findings suggest the need for use of guidelines, supported by training.
- Employers are willing to provide support, including access to counselling and specialist help, but this is often limited in its extent, or restricted to certain employees. There would be benefits to all employees in providing better support on mental health matters and on wider promotion of well-being at work.

Formal assistance offered to employees experiencing stress or mental health problems

Sector (10 organisations in each)	Type of assistance offered
Local Authorities	Initial counselling from occupational health staff. Referrals for formal counselling, but rationed. Some staff trained in counselling skills for mentoring. Anti-stress treatments (e.g. massage).
Health	Employee Assistance Programme (EAP) with face-to-face counselling in 2 trusts. Initial counselling from occupational health staff. Formal counselling from occupational staff or through sessional counsellors. Occasional referral for treatment by other trusts.
Rail Transport	EAP with face-to-face counselling in most companies. Counselling for staff involved in incidents at work. Initial counselling by occupational health staff. Referrals to counselling for trauma. Stress reduction programme, including group and individual sessions in 1 company.
Food Manufacturing	EAP in 3 companies (1 with face-to-face counselling). Initial informal counselling from occupational health staff. Regular referrals for formal counselling in 2 companies. Only occasional referrals for counselling in most companies.
Entertainment	EAP with face-to-face counselling in 1 orchestra. Access to counselling service in 1 orchestra. Access to services of parent organisation in 2 orchestras and 1 theatre. Only occasional referrals to counselling in most organisations.

MEANS TESTING RETIREMENT BENEFITS

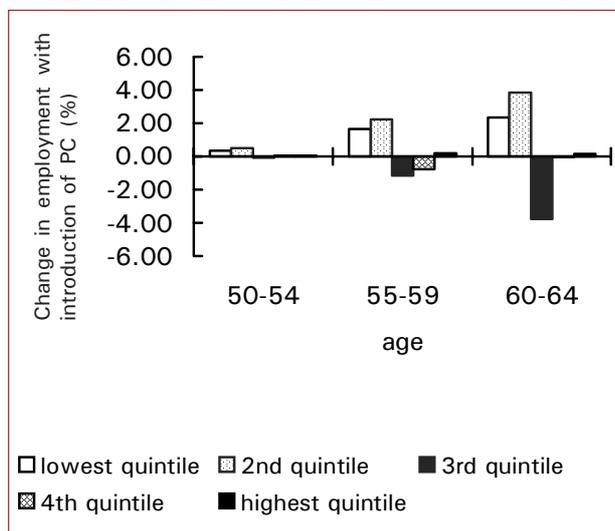
Means testing plays an important role in the provision of retirement benefits in the United Kingdom, and is currently a topic of public interest following the recent release of the Pensions Commission's second report. In a recent report commissioned by the Department for Work and Pensions, we discuss the incentive effects of means testing in the context of recent and proposed changes to pensions policy.

We find that, in the long run, replacing the Minimum Income Guarantee (MIG) with the Pension Credit (PC), which was implemented in October 2003 and reduced taper rates on private income from 100% to 40%, will:

- encourage an additional 5% of the bottom two population quintiles (by lifetime labour income) to delay retirement to age 65
- increase the average retirement savings of the bottom two population quintiles by £4,000 per household
- motivate an additional 5% of households in the third population quintile to retire before age 65
- reduce the average retirement savings of the third population quintile by £6,600 per household
- have a negligible effect on the behaviour of the top two population quintiles.

Aggregating the behavioural effects over a population cohort suggests that substitution effects on poorer

Long-run effects on savings and retirement of replacing the Minimum Income Guarantee with the Pension Credit



households will dominate the long-run impact on retirement of the shift from the MIG to the PC, so that an additional 0.5–1.4% of the population will choose to supply labour between ages 60 and 64. In contrast, the offsetting savings responses of alternative households produce an insubstantial fall in aggregate population savings.

In terms of the long-run budgetary impact of the change from the MIG to the PC, the study supports the view that the reduction in pensions means testing will reduce the reliance on the welfare state. The effect of the policy change on the aggregate government budget, however, suggests overall budget neutrality. Under the PC, the effects of reduced government expenditure on means-tested benefits, reduced tax receipts from savings and increased tax receipts from working longer all offset one another.

This last observation is a key result of the current study, and arises due to an interesting relation between the behavioural responses of poor and middle income households. In the absence of behavioural responses, it is clear that many households in receipt of the MIG would receive a larger state benefit under the PC. Our analysis, however, implies that poor households will actually impose a smaller burden on the public purse under the PC than they would have under the MIG, because of their responses to the improved incentives to save. This net benefit to the government budget is almost exactly offset in our analysis by the responses of middle income households, who save less and retire earlier under the PC. The finding of budget neutrality is important as it suggests that the policy reform is welfare improving, since all households are at least as well off under the PC as they would have been under the MIG, and some are made distinctly better off.

This work was supported by the Department of Work and Pensions. Enquiries to Justin van de Ven (j.vandeven@niesr.ac.uk).

THE JOB SATISFACTION AND TURNOVER OF ENGLISH ACADEMICS

Academics in technology subjects, medicine and dentistry, those on temporary contracts and those who are dissatisfied with either pay or 'non-pecuniary' elements of their job are the most likely to leave UK higher education. These are some of the conclusions of a study of English academics conducted as part of recruitment and retention of academic staff, for the Department for Education and Skills.

Demand for academic staff in Higher Education (HE) has been increasing and is likely to increase further if the Government's target of 50% of 18 to 30 year-olds in HE by 2010 is to be met. At the same time, recruitment and retention problems have been growing in prominence. Consequently, there is concern about the adequacy of the future supply of academics.

Earlier research reported in the *National Institute Economic Review* suggests that academics earn less than similarly qualified individuals elsewhere, but that there are elements of academic employment that compensate for these disparities. The research described here investigated the satisfaction of academic staff with a number of elements of the job and their influence on their reported likelihood of leaving UK HE.

We found that the most satisfying elements of the job were the actual work itself, the ability of staff to use their own initiative and their relations with other colleagues.

'The job satisfaction of English academics and their intentions to quit academe' by Philip Stevens, National Institute of Economic and Social Research, Discussion Paper 262. This work was supported by the Department for Education and Skills. Enquiries to p.stevens@niesr.ac.uk.

Factor analysis of our results suggests that academics are considering three separate sets of elements of their jobs, namely the pecuniary factors, the longer-term aspects of the job (job security and promotion prospects) and other non-pecuniary factors. We found that dissatisfaction with both the pecuniary and the non-pecuniary elements of the job (but not the longer-term prospects) increased the reported likelihood of leaving.

The UK HE sector is increasingly relying on immigration and short-term contracts to fill roles. Our research found that foreign academics are more likely to leave UK HE and so will only represent a short-term solution to staffing levels in UK HE unless they can be persuaded to remain. Staff on temporary contracts are significantly more likely to leave UK HE than their permanent colleagues, and as the end of a fixed time contract approaches, are even more likely to leave. The likelihood of leaving is highest among staff working in technology subjects and in medicine and dentistry. It is lowest in the humanities (except law).

Staff satisfaction with elements of academic employment



Note: Satisfaction is coded from 1 = 'Completely satisfied', with 4 = 'Neither satisfied nor dissatisfied'.

TWO RECENT INTERNATIONAL COMPARISONS OF SCHOOLING

The political impulse to improve English schooling was much strengthened by the National Institute's international comparisons of secondary schooling attainments published just twenty years ago (National Institute Economic Review, May 1985). In addition to National Institute team-visits to schools in Germany (subsequently also to other European countries), our comparisons relied on results of sample surveys of mathematical attainments of pupils in Britain and a dozen other countries carried out by the IEA (International Association for the Evaluation of Educational Attainment) in 1964 – all agreeing on substantially lower mathematical attainments of middle and low-attainers in English schools, particularly so in basic arithmetic. This had an undisputed bearing on lower supplies of technicians and certificated craftsmen in Britain, and thus on technological efficiency and economic progress. Since then, repeat international sample surveys of schooling have been carried out with increasing frequency – initially about once a decade, most recently twice in three years – with the number of participating countries rising to nearly fifty now.

Our concerns have been to elucidate what can be learnt with any confidence from the complexity of methods and, often, poor sampling response. 'Doubling up' of such surveys began in 2000 with the OECD's introduction of its PISA surveys on broadly the same lines as the established IEA surveys. There were three main differences between the surveys. (1) The OECD survey was of pupils about one year older (at age 15 instead of the IEA's age of about 14); (2) the OECD questions were intended to be less oriented to the school curriculum and more towards practical life; (3) whereas the IEA surveys were based on samples of *whole* classes (thus permitting, in principle, calculation of the variability of students' attainments within each class), the OECD survey was based on 15 year-old pupils in whichever class they were to be found – very relevant in school systems which rely on class-repeating and skipping

to reduce variability within teaching groups – but which did not permit any analysis of whole 'teaching-classes'.

No systematic comparisons have been published by the sponsors of these surveys and, in their outcome, the differences in method do not seem to be sufficiently great to justify burdening schools with two such surveys in a single year. Non-response by schools provided a serious limitation to interpreting the results in many important countries, particularly in England where the burden of these outside tests falls close in timing to the legally required SAT tests at age 14. A response rate of only 34 per cent was recorded for England's/the UK's IEA survey of 2003, and of 50 per cent for the OECD/PISA survey. Response rates in the US were only slightly higher, at 66 and 54 per cent, and not sufficient to encourage confidence in the findings. Non-response tends to be higher amongst low-attainers. The IEA results for England were all 'annotated' and placed below other countries' results to indicate lack of reliability (see Mullis *et al.*, TIMSS 2003/International Mathematics Report, p. 351); and the OECD/PISA results for the UK were all footnoted as 'Response rates too low to ensure comparability'.

The main features of the two surveys of 2003 are compared in the table on the next page; their similarity both in general objectives and in lack of success strongly suggest that resources have not been well used.

The National Institute, together with its specialist advisors, hopes to continue to maintain a critical eye on developments; the costs of these surveys, as they stand, do not seem justified. A fuller analysis has been accepted for publication in the *Oxford Review of Education*.

This report was written by Professor Sig Prais.
Enquiries to s.j.prais@niesr.ac.uk.

Main features of two international tests of mathematics attainments at age 14–15 carried out in 2003

Sponsor/title of survey	IEA/TIMSS			OECD/PISA		
	Number of countries surveyed	46			41	
Specimen countries	US	England	Japan	US	UK	Japan
Age of students (average)	14.2	14.3	14.4	–	15:8 ^(a)	–
Average mathematics score ^(b)	504	498	585	483	(508) ^(c)	534
No. of schools originally sampled	301	160	150	382	451	150
of which, no. responding	211	62	146	249	311	131
'Replacement' schools sampled	21	25	–	13 ^(d)	50 ^(d)	13 ^(d)
No. of pupils assessed per school	38	33	33	20	26	33
Average class size	24	27	35	–	–	–
Overall response rate (school, class, student) %	66	34	93	54	50	83

Sources:

Adams, R. (ed.), *PISA 2003 Technical Report* (OECD, Paris, 2005); Martin, M.O. *et al.*, *TIMSS 2003 Technical Report* (Boston, USA, 2004); Mullis, I.V.S. *et al.* *TIMSS 2003 International Mathematics Report* (Boston, USA, 2004); Schleicher, A. *et al.*, *Learning for Tomorrow's World: First Results from PISA* (OECD, Paris, 2004).

Notes:

(a) PISA, p. 320 (individual countries not reported, but presumably not different because of the specified 12 months' age-range).

(b) Each survey's scores standardised to an international average of 500 (and standard deviation of 100); but remember that the sample of countries cooperating was not the same in the two surveys, and scores for the two surveys are not strictly comparable.

(c) As reported for the UK with severe reservations (PISA, annex A3, p. 328).

(d) Replacement schools *responding* (PISA, p. 327); as a result of an editorial error, the total number of responding and non-responding schools *after* school replacement (col. 10, table A3.3) is shown there as identical to that total *before* replacement (col. 5, *ibid.*). The number of replacement schools *sampled* is thus not ascertainable from the published information.

MEASUREMENT OF OUTPUT OF PUBLIC SERVICES

A continuing concern in public policy is the measurement of the output of public services. Good measures of output are needed both to assess the performance of the public sector and in order to identify the overall level of output of public services and thus their contribution to the nation's gross domestic product. The Centre for Health Economics at York and the National Institute have just completed a study of output measurement in the health service. The study focused particularly on hospital inpatient treatment.

Exploration of the data showed that only a limited amount is known about the effects of hospital treatment. For all patients it is known what treatment they received, how long they had to wait for elective treatments and whether they died either in hospital or within thirty days of discharge. By contrast an ideal measure of hospital output would be based on what treatments do for patients in terms of enhancing their health status and/or extending their lives. At the same time a measure needs to recognise that one of the functions of the health service is to provide palliative care.

Without such value-based measures it is necessary to assume that the social value of the different

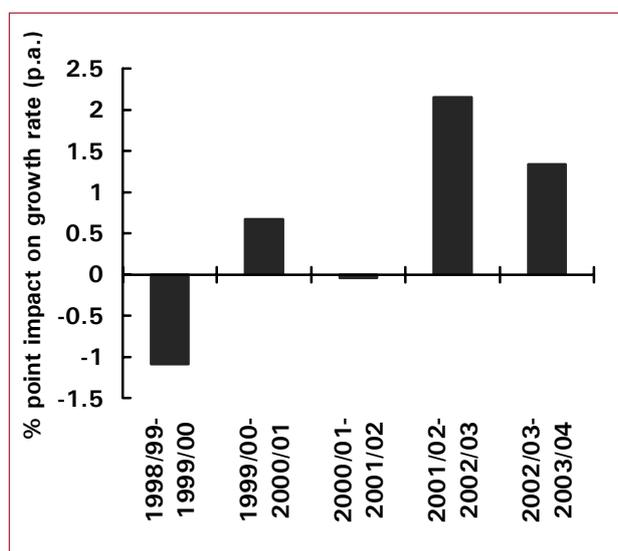
This work was carried out by Mary O'Mahony, Philip Stevens, Lucy Stokes, Martin Weale and collaborators from York University and was financed by the Department of Health. Enquiries to m.weale@niesr.ac.uk.

treatments provided is proportional to their costs. For those treatments which do not provide terminal care we found it was possible to reflect improvements in mortality in the index which we produced. We were also able to take account of the effects of waiting time with waiting being treated as a charge associated with delayed benefits and one on which interest cumulates. With this assumption it is hard to see that changes in waiting time will ever have a large impact on a measure of health service output.

Other aspects of quality which can be incorporated into an output index include information on readmissions and on MRSA infections. In assessing the former one would ideally like some information on the optimal rate of readmission – based on the principle that most patients would rather be discharged with some risk than wait in hospital until there was no risk. It is also possible to include patients' views about the quality of care offered, although information on this is limited.

The chart shows the effect on measured hospital output of the adjustment for mortality which the York/NIESR team proposed.

Effect of mortality adjustment on hospital output



CONSUMPTION, WEALTH AND FINANCIAL MARKETS

The National Institute of Economic and Social Research has in the past year undertaken a sequence of projects on the determinants of consumption. The largest project on the recent weakness of consumption in Europe was financed by the European Commission, whilst other work has been undertaken on a European Union Sixth Framework project and for the Pensions Commission.

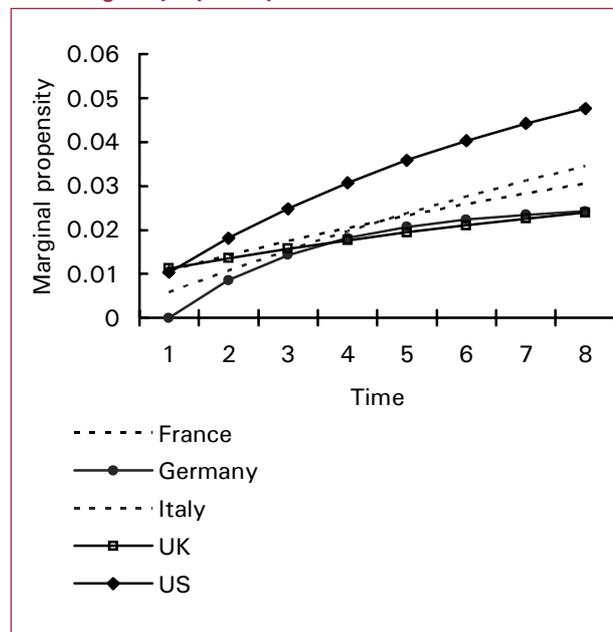
Understanding the behaviour of private consumption is crucial for the assessment of the economic situation in the short and the medium term. Households endeavour to smooth their spending over the life-cycle, and their savings should depend on their retirement needs. Since 2001, growth in private consumption has been persistently sluggish in the Euro Area and has been much weaker than in the UK or the US. Our main project undertook an extensive econometric investigation of the determinants of consumption in Europe and in the US.

We found that changes in real personal disposable income growth have been the major factor behind weak consumption growth, and developments in financial and housing wealth have also had some impact. Our results indicate that, in the short run, changes in house prices have around four times the impact of changes in financial wealth, in part because few consumers are aware of the value of their pension assets based on equity markets, but they are aware of the value of their house.

The change in real house prices or in housing wealth was found to be statistically significant in Germany, France, the UK, the US, the Netherlands, Spain, Portugal, Ireland and Scandinavian countries. With the notable exception of Germany, all the countries have experienced housing market booms in recent years, and this has supported demand.

Our Sixth Framework project extended the analysis of the impacts of equity prices and housing markets on the economy, and emphasised

The marginal propensity to consume out of wealth



that equity market effects were three times larger in the US than in Europe because US wealth is much more equity based and more equities are held directly by individuals. We also showed that the marginal propensity to consume out of wealth was initially very low, but builds up over time, as we can see from the figure above.

Recent weakness in consumption in Germany and Italy may also depend on recent and prospective changes in pensions and social security provisions. If the state becomes less generous in providing pensions, then self provision has to rise, and this will weaken consumption growth and slow down output growth in the short run. Our work for the Pensions Commission built on this insight, and looked at the effects of higher saving on the UK. We showed that the operation of an independent monetary policy in the UK would allow some of the weakness of demand that comes from higher saving to be taken up in a lower exchange rate and in more net exports.

This work was undertaken by Ray Barrell, Philip Davis, Dawn Holland, Rebecca Riley, Simon Kirby, Ali Al Eyd, and Olga Pomerantz. Enquiries to r.barrell@niesr.ac.uk for the two Commission projects and to s.kirby@niesr.ac.uk for pensions work.

OUR EVENTS PROGRAMME 2005

During 2005, The National Institute's events calendar flourished, and included a broad range of high-profile, successful events.

In January, Professor Simon Burgess (University of Bristol) presented a paper entitled *Choice and Sorting in England's Schools* in a suitably grand setting at the HM Treasury building, as part of the Westminster Economics Forum. The paper focused on the analysis of choice in education markets, and two main components in the debate: the impact of choice on improving outcomes through competitive pressure on all schools, and the impact of choice on the sorting or segregation of pupils across schools. This second issue formed the basis of his research.



Professor Simon Burgess, University of Bristol, speaker at the Westminster Economics Forum series in 2005.

The National Institute was proud to host an important and topical seminar at its Westminster offices in April. Led by Professor Christopher Hood (All Souls College, Oxford) and Professor Gwyn Bevan (London School of Economics) the seminar, *Governance by Targets and Terror: Synecdoche, Gaming and Audit*, discussed how the UK Government developed a system of governance of public services that combined targets with an element of terror. Their concerns were focused on the assumptions underlying this mode of governance and how robust they are.

Professor Gwyn Bevan, London School of Economics and Professor Christopher Hood, All Souls, Oxford, speakers at the Westminster Economics Forum series in 2005

This event also formed part of the Westminster Economics Forum programme.

The Westminster Economics Forum has continued to play a large role in NIESR's events calendar during 2005. In June, The House of Lords hosted a presentation from Sir Andrew Turnbull, former Secretary of the Cabinet and Head of the Home Civil Service, entitled *Public Service Reform: A Look Back – A History of Public Service Reform*. In this talk, Sir Andrew asserted that public service reform has been a central preoccupation of the Labour Government since it took office in May 1997. His presentation set out the administration's approach and put it into a historical context.

June was a decidedly busy period for NIESR's events office, in no small part due to our close involvement and interest in the ESRC's Social Science Week 2005, which took place from 20–24 June. This was the third year in which the ESRC had coordinated its week-long celebration of research in the social sciences, made up of a series of different initiatives across the UK from conferences to workshops and book launches to policy briefings.

NIESR contributed to Social Science Week with a conference presentation, *Consensus Estimates of Forecast Uncertainty: Working Out How Little We Know*, led by Dr James Mitchell (NIESR). The talk centred upon the declaration that forecasts of the

future values of economic variables are used widely. For example, inflation forecasts are central to the setting of monetary policy by the Monetary Policy Committee at the Bank of England. Our participation in the ESRC's Social Science Week 2005 concluded with a presentation given by Dr Philip Stevens (NIESR), entitled, *What Has The Public Sector Ever Done For Us?* The presentation focused on how the public sector represents a sizeable proportion of the UK economy and spending has risen at an almost unprecedented rate in recent years. Recent attempts to generate more useful measures of the output and productivity of the public sector were



Dr. Philip Stevens and Dr James Mitchell, National Institute of Economic and Social Research, who presented seminars during the ESRC's Social Science week.

surveyed, and Dr Stevens used illustrations from a number of government services, including the big political bugbears of health and education spending.

The annual Sir Richard Stone Lecture Series events took place over one week in October this year, beginning with a lecture kindly hosted by the Bank of England. Professor Kenneth Wallis, of the University of Warwick, gave two lectures, the first of which was entitled, *Forecast Uncertainty – Its Measurement and Representation*. The lecture surveyed the different ways in which economic forecasters measure and report uncertainty. Official agencies appearing in the survey included



Professor Kenneth Wallis, University of Warwick, who presented the Stone Lecture.

the UK Treasury and the Bank of England, and other agencies in the Netherlands and the United States. The lecture also considered measures of disagreement among forecasters, and reported a recent study of the Bank of England's Survey of External Forecasters.

The subsequent week in October saw NIESR play host to the second of the Stone Lectures, at which Professor Wallis gave a follow-up seminar, entitled *Forecast Uncertainty – Its Representation and Evaluation*. The lecture surveyed recent research on statistical methods for the evaluation of interval and density forecasts. Methods of comparing and combining such forecasts were also considered.

For more information on this year's events, or to view any of the presentations or papers given, please visit our website at www.niesr.ac.uk/events and follow the links to the archived pdf files. If you are interested in receiving invitations to all future NIESR seminars and conferences please contact Kyra Kellawan, External Relations Officer, on 020 7654 1931, or e-mail her at k.kellawan@niesr.ac.uk.

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 2005 were as follows:

No. 191 (January)

Fiscal policy: institutions versus rule

Charles Wyplosz

Are we saving enough? The macroeconomics of the savings gap

Olga Pomerantz and Martin Weale

Policy design and macroeconomic stability in Europe

Ray Barrell and E. Philip Davis

Paying for university: the impact of increasing costs on student employment, debt and satisfaction

Hilary Metcalf

No. 192 (April)

Introduction

E. Philip Davis

Modelling financial instability

Franklin Allen

Empirical analysis of the causes and consequences of banking crises

Asli Demirgüç-Kunt and Enrica Detragiache

Monetary and financial stability: so close and yet so far?

Claudio Borio

Assessing financial stability: exploring the boundaries of analysis

John Fell and Garry Schinasi

Financial regulation, credit risk and financial stability

C.A.E. Goodhart

No. 193 (July)

How forecasts evolve: the growth forecasts of the Federal Reserve and the Bank of England

William A. Allen and Terence Mills

The National Institute density forecasts of inflation

James Mitchell

Forecast comparisons

Ray Barrell, Simon Kirby and Robert Metz

The return to a university education in Great Britain

Nigel C. O'Leary and Peter J. Sloane

Assessing the performance of local government

Philip Andrew Stevens

The superior educational attainments of pupils in religious foundation schools in England

S.J. Prais

No. 194 (October)

Introduction

John Ermisch

Europe and its fertility: from low to lowest low

Francesco C. Billari

Demographic change and the European Union labour market

Katerina Lisiankova and Robert E. Wright

Stochastic infinite horizon forecasts for US social security finances

Ronald Lee and Michael Anderson

Immigrant performance and selective immigration policy: a European perspective

Amelie Constant and Klaus F. Zimmermann

European asylum policy

Timothy J. Hatton

From 2006, all issues of the National Institute Economic Review will be based on a theme. We will also be introducing an on-line forum for subscribers.

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.

251. Forecasting manufacturing output growth using firm-level survey data
James Mitchell, Richard Smith and Martin Weale

252. Means testing and retirement choices in Europe: a comparison of the British and Danish systems
James Sefton and Justin van de Ven

253. Evaluating, comparing and combining density forecasts using the KLIC with an application to the Bank of England and NIESR ‘fan’ charts of inflation
James Mitchell and Stephen Hall

254. Simulating cohort earnings for Australia
Justin van de Ven

255. Taxation and redistribution in Australia and the UK – evidence from microsimulation analyses
Justin van de Ven

256. Does labour productivity flow across industries? Estimation robust to panel heterogeneity and cross-sectional correlation
Joseph Byrne and Michela Vecchi

257. The productivity impact of E-commerce in the UK, 2001: evidence from microdata
Ana Rincon-Aznar, Catherine Robinson and Michela Vecchi

258. Two recent (2003) international surveys of schooling attainments: England’s problem
Sig Prais

259. The provision of library services by English local authorities
Philip Stevens

260. Survey expectations
Hashem Pesaran and Martin Weale

261. Quantitative inference from qualitative business survey panel data: a microeconomic approach
James Mitchell and Martin Weale

262. The job satisfaction of English academics and their intentions to quit academe
Philip Stevens

263. Poverty and debt
James Mitchell, Kostas Mouratidis and Martin Weale

264. Developing new approaches to measuring NHS outputs and productivity
Diane Dawson, Hugh Gravelle, Mary O’Mahony, Andrew Street, Martin Weale, Adriana Castelli, Rowena Jacobs, Paul Kind, Pete Loveridge, Stephen Martin, Philip Stevens, Lucy Stokes

265. The effects of means-testing pensions on savings and retirement
James Sefton, Justin van de Ven and Martin Weale

266. Uncertainty in UK manufacturing: evidence from qualitative survey data
James Mitchell, Kostas Mouratidis and Martin Weale

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.

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- van de Ven, J. and Creedy, J., 'Taxation, reranking and equivalence scales', *Bulletin of Economic Research*, 57(1), pp. 13–36.

PAPERS PRESENTED

- Al-Eyd, A., Barrell, R. and Holland, D., 'The role of financial markets' openness in the transmission of shocks in Europe', 6th Framework Conference, Berlin, 28 November.
- Barrell, R., 'Macro economic outlook for the Euro Area, European Commission EFN conference, Brussels, 31 March.
- 'Prospects for the World Economy', United Nations Project LINK, UNAM Mexico City, 15 May.
- 'FDI, growth and European integration', Plenary session, Euroframe Conference on Globalisation, Vienna, Austrian Central Bank, 2 June.
- 'The consequences and causes of volatility', HM Treasury, 14 July.
- 'Productivity and ageing', Ageing Working Group of the European Commission, Brussels, 19th September.
- 'The European economy, responses to shocks', DG ECFIN, Brussels, 26 September.
- 'The US current account deficit and its exchange rate consequences', United Nations Project LINK, UNAM Mexico City, 15 May and UNCTAD, Geneva, 31 October.
- 'World economy prospects', United Nations LINK, UNCTAD, Geneva, 31 October.
- 'The resilience of consumption in the Euro Area', Medium Term Group of the AIECE, Brussels, 2 November.
- 'Oil prices, inflation expectations and prospects for the European Union', United Nations Project LINK, UNCTAD, Geneva, 1 November.
- 'Globalisation and its implications for the UK economy', Treasury Select Committee, private briefing session, 15 November.
- Barrell, R. and Davis, E.P., 'The resilience of consumption in the Euro Area', DG ECFIN, 8 July.
- 'Equity prices and the real economy – a vector-error-correction approach', 6th Framework Conference, Berlin, July.
- Barrell, R. and Dees, S., 'World trade and global integration in production processes: a reassessment of import demand equations', European Central Bank, June.
- Barrell, R. and Hall, S., 'The inter-relationship between European equity markets and real activity in the presence of structural change', Sixth Framework Conference, Berlin, 28 November.
- Garbers, C. and Meadows, P., 'Sure Start local programmes in England: improving the employability of parents', February.
- Hall, S., 'Density forecasts in practice', Keynote address at the African Econometric Society, Kenya, July.
- Hall, S. and Mitchell, J., 'Density forecast combination', Plenary Session, African Econometric Society Annual Conference, Kenya, 6–8 July.
- Holland, D., 'Forecasting the Euro Area economy', Euroframe-EFN Workshop, European Commission, Brussels, September.
- Kirby, S., 'Prospects for the UK economy', 72nd Kieler Konjunkturgespräch, Kiel University, September.
- 'The risks to employment: an overview', Department for Work and Pensions, London, September.
- Meadows, P. and Metcalf, H., 'Does literacy and numeracy training for adults increase employment and employability? Evidence from the Skills for Life programme in England', Second International Conference on Training, Employability and Employment, Monash University Centre, Prato, Italy, 23 September.
- 'Study of the impact of skills for life on learners', National Research and Development Centre for Adult Literacy and Numeracy International Conference 2005, 10–12 March, Staverton Park, Northants.
- Mitchell, J., 'Evaluating forecast uncertainty', European Commission's Euroframe European Forecasting Network meeting, London, 10 February.
- 'Should we be surprised by the unreliability of real-time output gap estimates? Density estimates for the Euro-area', Society of Computational Economics 11th International Conference on Computing in Economics and Finance, Washington DC, 23–25 June.
- Mitchell, J. and Weale, M., 'A monthly indicator of GDP for the Euro Area: an application of the regression approach to interpolation', Workshop on frontiers in benchmarking techniques and their application to official statistics, Eurostat, Luxembourg, 7–8 April.
- 'Deriving efficient early estimates of official data from firm-level qualitative panel survey data', ONS Analysis of Enterprise Microdata 2005 CAED/BDL, Annual Conference, Cardiff, September.
- Nadeem, S., 'Solving the puzzle of effective implementation of work-life policies', Founding Conference of the International Centre of Work and Family, IESE Business School, University of Navarra, Barcelona.
- O'Mahony, M., Robinson, C. and Vecchi, M., 'The impact of ICT on the demand for skilled labour: a cross-country comparison', LBS/NIESR Conference on 'The economic impact of ICT: firms, industries and the macroeconomy', London Business School, 1 July.
- 'Heterogeneity of the labour input: methodological issues in constructing labour quality measures', EUKLEMS 2nd Consortium meeting, 9–11 June.
- Rincon-Aznar, A., Robinson, C. and Vecchi, M., 'The productivity impact of E-commerce in the UK, 2001. Evidence from micro-data', Royal Economic Society, Nottingham, 23–23 March, Scottish Economic Society

- Conference, Perth, 29–31 March and Business Data Linking Annual Conference, Cardiff, 7–9 September.
- Robinson, C., Harris, R. and Cher Li, Q., ‘The productivity impact of skills in English manufacturing, 2001: evidence from plant-level matched data, September.
- Rolfe, H., ‘Findings of the support childminder scheme evaluation’, Support Childminding Seminar, Ambassadors Hotel, Bloomsbury, March.
- Stevens, P., ‘Measuring productivity in the public sectors: identifying measures’, Sector Skill Councils Intelligence Network Workshop, 1 February.
- ‘What has the public sector ever done for us?’, ESRC Social Science Week 2005, NIESR, 23 June.
- Stevens, P. and O’Mahony, M., ‘Output and productivity measurement in the NHS’, Employment Research Unit 20th Annual Conference, Cardiff Business School, 6 September.
- Stevens, P., O’Mahony, M. and Stokes, L., ‘Metrics, targets and performance: the case of NHS trusts’, ESRC Public Services Seminar, University of York, 23 June.
- Weale, M., ‘Means testing’, Ministerial Seminar, Department of Work and Pensions, January.
- ‘Saving and income as macroeconomic indicators’, CEIES Conference, Alpbach, August.
- ‘The public sector and its contribution to the economy’, NIESR/RSS Conference on Measuring Government Outputs and Productivity, November.
- Evidence to Citizens Age Concern Jury on pensions, July.

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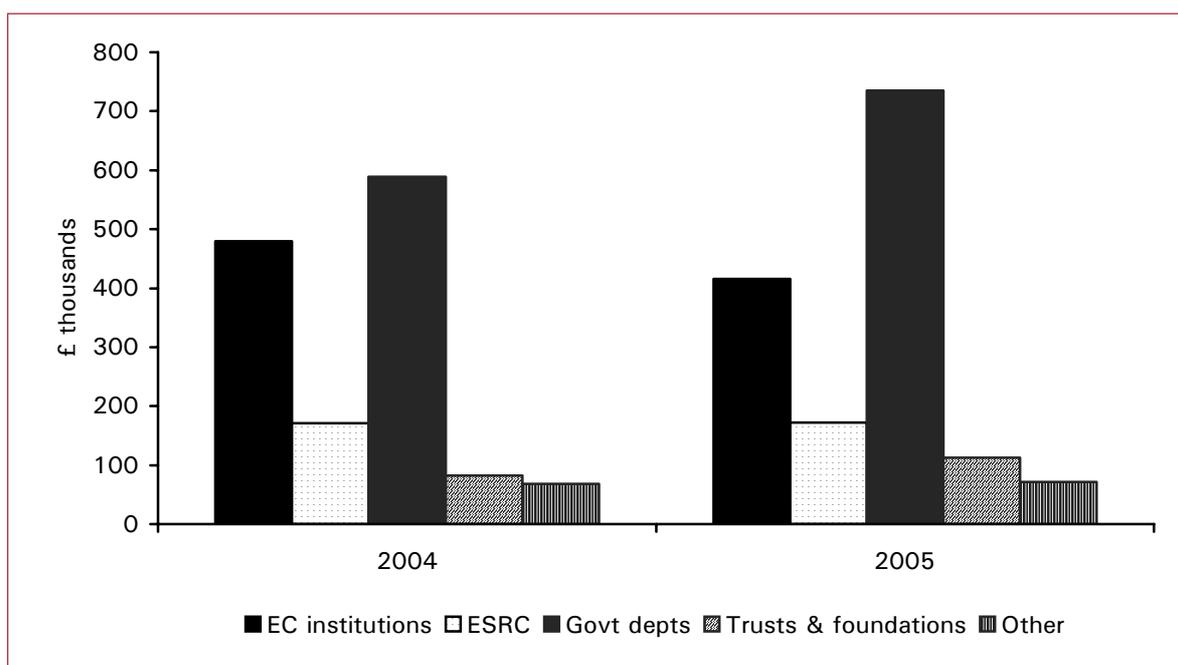
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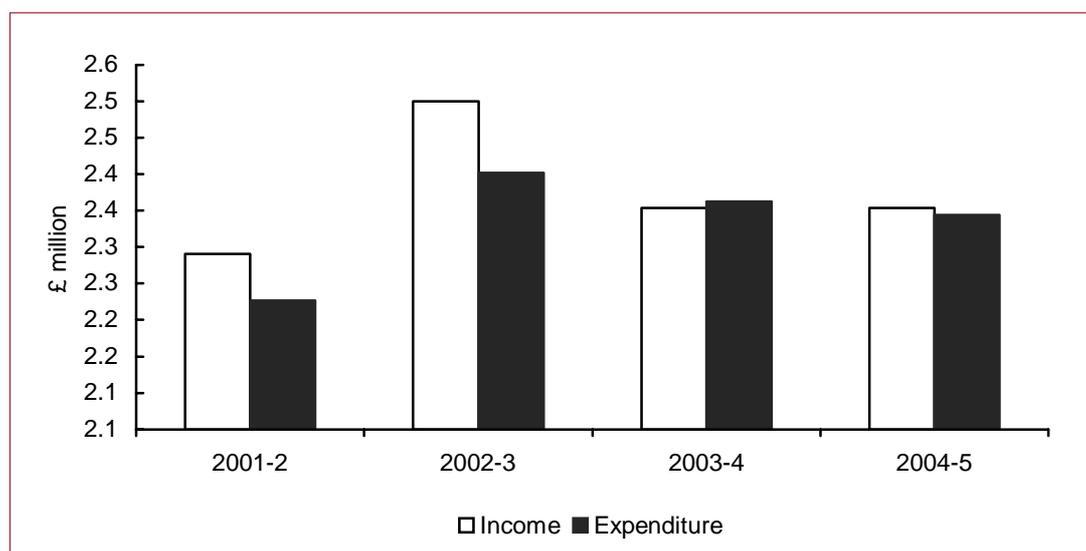
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	2004-5	2003-4	2002-2003
	£	£	£
INCOME			
Research	1,507,212	1,340,959	1,497,214
Publications	688,914	824,594	780,306
Corporate supporters	51,900	67,835	88,422
Investments and interest	104,870	120,023	133,730
Total income	2,352,896	2,353,711	2,500,172
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Research	1,488,613	1,353,277	1,682,776
Publications	418,547	529,158	378,695
Premises	51,800	95,216	53,722
Administration and general services	385,081	384,491	256,366
Total expenditure	2,344,041	2,362,143	2,401,558
OPERATING SURPLUS/(DEFICIT)	8,855	(8,432)	98,613



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