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CentrePiece

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The new industrial tyranny?

Editor's note

Believe it or not, this issue marks the start of CentrePiece's third year. I hope that those of you who've been reading the magazine since the first issue will agree that we've lost none of our bite; the quality and range of articles in this issue can, I think, match any of our earlier ones. And we remain at the cutting edge of economic and related research. Our cover story, on telephone call centres, breaks completely new ground: it's a sneak preview of the work which its author Sue Fernie and her colleague David Metcalf (the Centre's Deputy Director) are completing for a book to be published later this year.

Although the study of call centres is based on UK data, the subject has a global relevance – Britain and the US happen currently to be the world leaders in the development of such centres. But I hope our international readers, of whom I know there are many, will forgive the fact that many of the pieces in this issue have a British slant. The Centre is as much concerned with the world beyond Britain's shores as it is with the UK economy, and we try to reflect that in CentrePiece. But we also try to ensure that we publish the most interesting material available at a particular time.

As usual, several of our pieces have links. Hilary Steedman is no stranger to these pages: she argues that radical steps are needed to tackle Britain's acute low skills problem. Susan Harkness looks at a manifestation of that problem in her analysis of the pay gap between full- and part-time women workers. And Mari Sako looks at another kind of pay – and productivity – gap opening up: one which she believes could have dangerous consequences for Britain's car industry. Back at the low pay end of the spectrum, Donna Brown comes up with an interesting way in which some employers might, perhaps unwittingly, benefit from a national minimum wage.

Standing in for her husband Danny, Kathleen Tyson Quah writes the Weightless Economy column in this issue: in her view, globalisation of many 'weightless' activities is now as inevitable as the fact that some people will always want to climb Mount Everest.

And our other guest columnists, Bridget Rosewell and Ruth Lea, return to the debate which featured heavily in our last issue: should the UK join the single European currency. They concentrate on the economic arguments – but still come up with different answers.

Here at CentrePiece we always like to be innovative. This issue is different in a number of ways. Do let us know what you think: if your letter is stimulating enough, we'll publish it. And it couldn't be easier: you can now email us direct: centrepiece@lse.ac.uk

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Another crisis in Britain's car industry?

The fashion for partnerships between car and component makers may be harmful unless component makers become more efficient, argues Mari Sako.

Partnership is the buzzword in the British car industry these days. In particular, partnerships between the car makers themselves and component makers are supposed to deliver better international competitiveness for the UK industry. Management likes the idea – it's advocated by the Society of Motor Manufacturers and Traders (SMMT). Government, in the form of New Labour, does too. Even the unions seem to endorse the principle. Bill Morris, General Secretary of the Transport and General Workers Union talked about making a contribution or even total commitment, a not dissimilar sentiment to that of Rover's Chief Executive, Walter Hasselkus, who spoke of the need for positive cooperation, not just acquiescence. It sounds persuasive. But is it the right way forward?

The short answer is no – at least not without a radical shake-up in some parts of the industry. The viability of partnerships depends crucially on how improvements are made; and how gains from such improvements are distributed. The role of lean production is crucial. By applying lean production techniques, UK vehicle manufacturers have made significant improvements in productivity. But the evidence suggests that component suppliers are, on average, lagging far behind in their performance. There is thus a widening gap between the companies which make cars, and those which make parts for them – a gap which does not bode well for the industry's future.

The lean production debate

Quite simply, lean production is a set of operational principles aimed at enhancing a company's performance. These principles include the elimination of waste; an objective of continuous improvement; and flexible work organisation

by Mari Sako

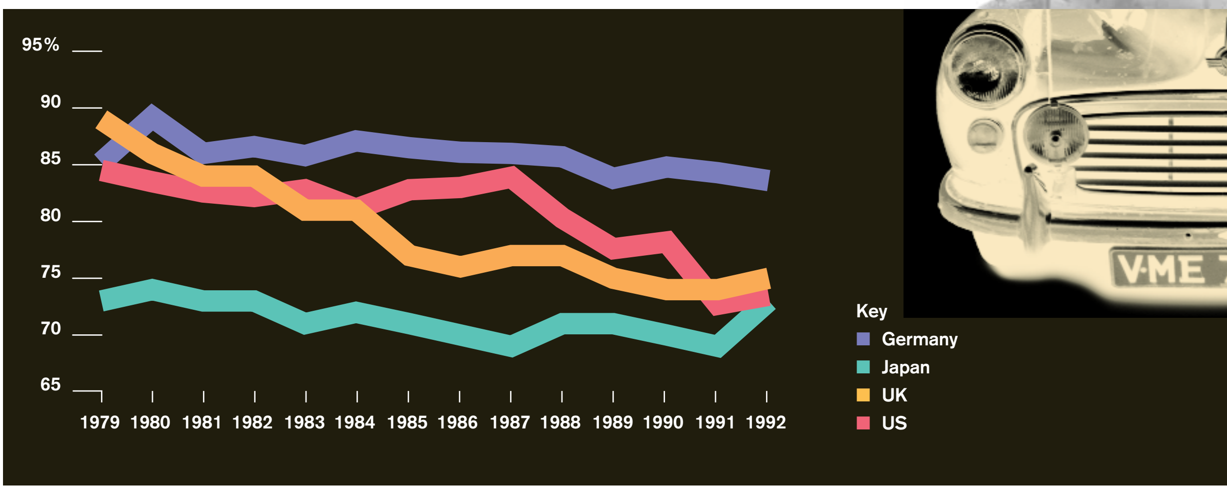
involving teamwork and multi-skilling. The diffusion of these lean production principles has inevitably led to a debate about the consequences of their adoption. The main argument is whether lean production is good or bad for workers within assembly plants. The proponents of lean production emphasise the beneficial effects of team work, problem-solving groups and other employee involvement practices on both business efficiency and the well-being of workers. The critics focus instead on the attempts to speed up work patterns, intensified supervision and the incorporation of team leaders into the management structure as detrimental for workers' well-being. While lean production may be good for companies, these critics argue, it's bad for workers.

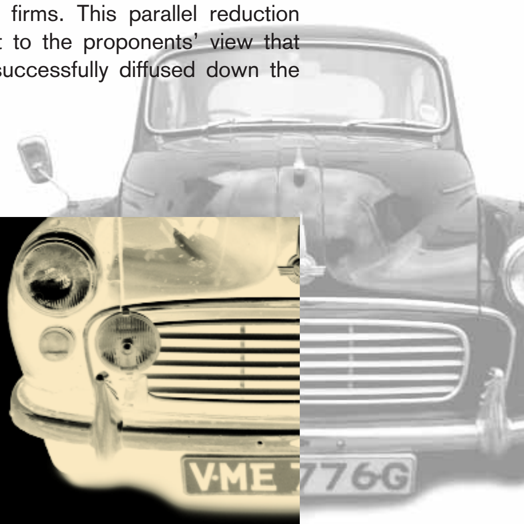
At one level, this debate is about labour-management relations within the firm. But it actually goes much wider: it's a debate about relationships between firms, because car-makers are able to outsource so much of their parts production. In this wider context, the argument is whether lean production at car assembly plants has been adopted to benefit parts suppliers – or at their expense. The advocates of lean production argue that lean assembly plants nurture lean suppliers, who also benefit from the reduction in inventories, high productivity and wage growth which the car makers themselves enjoy. Critics respond that in reality assembly plants have been able to shift the burden of inventory-holding onto their suppliers, who are used as buffers. As a consequence, the suppliers face insecure business prospects and are unable to invest in productivity-enhancing practices. Workers at these supplier plants in turn suffer from low pay and job insecurity.

The British evidence

So who's right? A study of the Census of Production data for the UK from 1979-1992 reveals some interesting – and disturbing – trends. The clearest indicator of whether lean production has been adopted or not is the reduction in inventory levels (supporting the principle of eliminating waste). Inventories in the automotive supply chain can be divided between inter-firm inventories, consisting of raw materials and finished goods, held as part of the trading relationship between firms; and internal work-in-progress inventories needed to accommodate variability and delay in manufacturing processes. During the thirteen year period, the raw material inventories of assembly plants and the finished goods inventories of suppliers fell by 60% and 65% respectively. Work in progress inventories fell by just over 70% in both categories of firms. This parallel reduction in inventories lends support to the proponents' view that lean production has been successfully diffused down the supply chain.

Figure 1 Wage gaps – supply plant workers' pay as a percentage of assembly workers' pay





But if such inventory reduction occurs as part of a lean production system, it should be linked to significant productivity growth. Typically, shopfloor improvement processes focus on eliminating all types of waste, and result not only in inventory reduction, but often also improved space utilisation, better standardised working methods and a reduction in manpower. Since inventories in the UK declined at much the same pace in both assembly plants and suppliers, we might expect to see productivity growing at much the same pace as well.

And international comparisons

This is not the case. Real labour productivity (measured by gross added value per head) rose three times faster at assembly plants than at suppliers' plants in Britain. This is pretty much the same ratio as in the US. But it's strikingly different from the experience in Japan and Germany, where

The productivity growth differential between UK assemblers and suppliers is reflected in the growing gap between the average pay of workers at the two types of plant.

Figure 2 Suppliers' wages and hours, relative to assemblers'

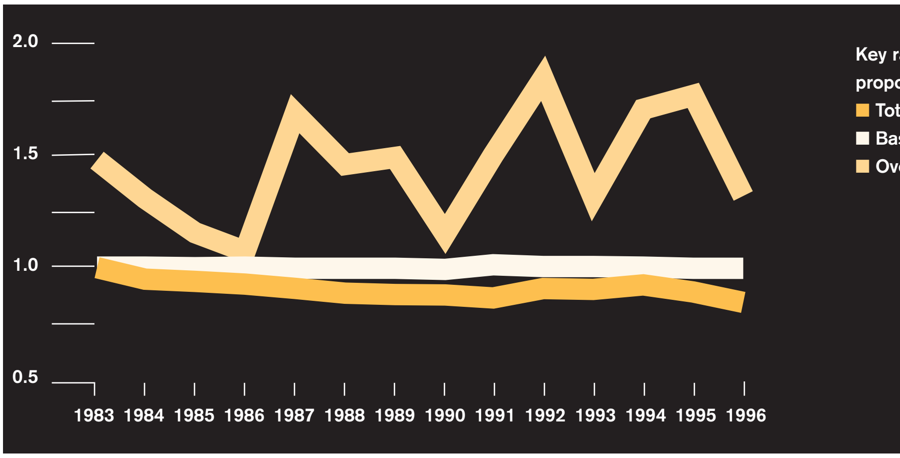
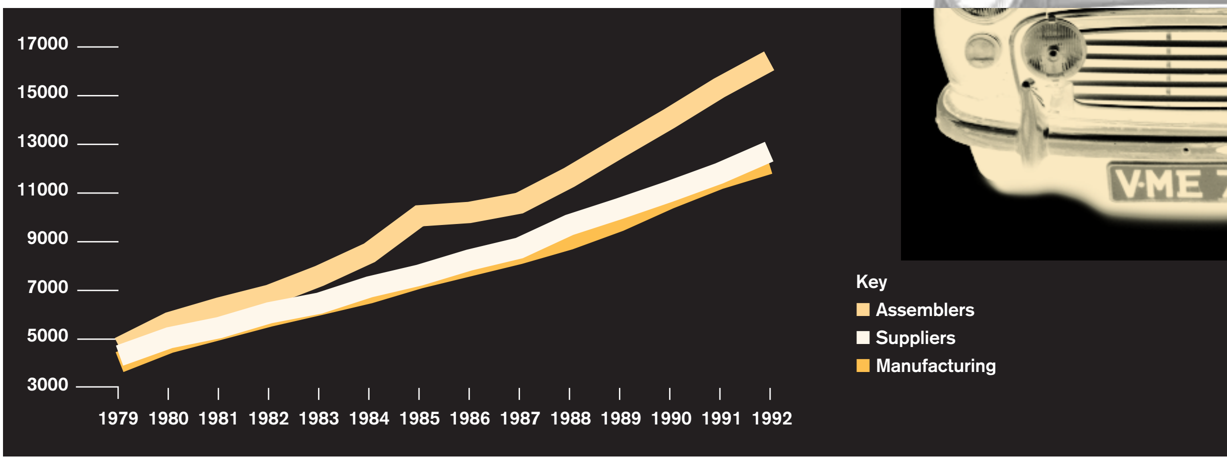


Figure 3 Operatives' wages in Britain



both suppliers and assemblers were able to improve productivity at similar rates. The productivity growth differential between UK assemblers and suppliers is reflected in the growing gap between the average pay of workers at the two types of plant.

Figure 1 (previous page) shows the average annual pay per head at supplier plants as a ratio of pay per head at assembly plants. In 1979, British supply plant workers enjoyed about 90% of assembly workers' pay; this declined steadily to 75% in 1992. Contrast this with the Japanese experience, where wages at supplier plants have been consistently lower, at about 73% of assembly plant workers' pay. This much lower ratio has, in the past, been cited as evidence of the dualistic structure of the Japanese economy. By 1992, the figures suggest, the dualism of the automotive market was no longer peculiar to Japan.

It's a similar story in the US, where supply-plant workers saw their pay fall from 85% of the average assembly-plant worker's wage in 1980 to 74% in 1993. But in West Germany industry-level collective bargaining is still largely intact in the car industry, and the relative pay ratio has stayed constant, at about 85%.

Why do supply workers fare worse?

It's not difficult to see why, in the UK, supply workers' pay has fallen in relative terms. The UK's New Earnings Survey enables us to deduce that it is the hourly wage rate at supply plants which has declined relative to rates at car assembly plants. To do this, we first of all concentrate on full-time manual male workers, in order to eliminate gender, status and occupational composition effects. Then we look at trends in work hours separately from hourly rates. We find that the basic weekly hours of full-time male manual workers have been falling very gently at both supplier and assembly plants: from 39 hours a week, to 37.5 hours. But we also

We also find that at supply plants, more hours overtime have been worked; and that this overtime has fluctuated more, lending support to the view that assembly plants use suppliers as buffers.

Low productivity growth at the supplier level will inevitably be reflected in high unit costs for UK-manufactured components; this in turn undermines the international competitiveness of British cars.

find that at supply plants, more hours overtime have been worked; and that this overtime has fluctuated more, lending support to the view that assembly plants use suppliers as buffers (see Figure 2, left, which shows the ratio of supplier hours and pay as a proportion of assembly plant hours and pay). It's nevertheless clear that what accounts for the decline in supply plant workers' annual take home pay is the relative decline in their basic hourly earnings (excluding overtime pay and hours), from nearly the same level – 99.7% – in 1983 to 84% in 1996.

The parallel reduction in inventories at both assembly and supply plants initially appears to support the optimistic view that lean production is smoothly diffusing down the supply chain. This optimistic assessment is more difficult to sustain, however, because the inventory reduction is not matched by similar parallel improvements in productivity growth. The gap between the two seems likely to be the result of the application of just-in-time techniques at supply plants in isolation from other concomitant changes in work organisation and human resource policies which should be made to obtain long-lasting improvements.

The clear consequence of these trends is that in the 1980s a distinct dualistic structure has emerged in the labour market of the UK car industry, with workers at supply plants receiving significantly lower pay than those at assembly plants. Figure 3 (left) shows this trend in perspective: it is not suppliers' wages which have fallen behind, but assembly workers' wages which have seen exceptionally high growth.

Cause for concern?

What these pay trends reveal, of course, is the persistently low productivity growth in car component suppliers. This is something which should concern management, labour and policymakers alike. It's true that managers might be content that wage levels reflect productivity at the individual plant level. But low productivity growth at the supplier level will inevitably be reflected in high unit costs for UK-manufactured components; this in turn undermines the international competitiveness of British cars. As firms disintegrate, and outsource more and more of their operations, it becomes ever more important to strengthen the mechanisms for diffusing innovative practices across firm boundaries. This could be done in a number of ways: through the introduction of supplier development programmes by assemblers; through Japanese-style supplier associations; and through third-party programmes such as the provision of technical assistance by the SMMT Industry Forum.

Of course, the decentralisation of collective bargaining in the engineering-related component sector, the decline in the average size of plants, and the decline in trade union intensity have all contributed to a reduction in the bargaining power of unions based at component suppliers. But the synchronisation of production between assembly plants and some of the suppliers, such as that between Ford and Johnson Controls, both based at Dagenham, has created a degree of interdependence which unions can use to strengthen their bargaining power. And in the near future, the creation of supplier business parks by the major UK-based vehicle manufacturers will mean that more and more workers employed by component suppliers are working on the same site as assembly workers.

These changes in the mode of vehicle production, from mass production by a single highly integrated supplier to flexible production by a lean assembler with suppliers of modules located close by, are likely to change the definition of the internal labour market. It is quite possible, likely even, that workers based on the same site in synchronised production processes would demand pay parity, regardless of who their employer actually is. Trade unions should focus on bargaining accordingly, while working towards improved productivity at component suppliers.

The challenge of achieving productivity improvements at car component suppliers is therefore one facing both management and unions. Failure to meet that challenge could undermine the dramatic progress made in the rest of the car industry in the past few years.

Mari Sako is a Research Associate of the CEP and Professor of International Business at the University of Oxford.

Hanging on the telephone

by Sue Fernie

Call centres – the workplaces of the future or the sweatshops of the past in a new disguise? Sue Fernie reports on groundbreaking research at the CEP.

Have you ever wondered who's behind the friendly Scottish voice which so helpfully and speedily deals with your banking or your car insurance or your directory enquiry? Have you ever been convinced by a persuasive BT salesperson that you can't cope without 'Friends and Family' or call waiting? These faceless creatures at the end of the phone who work round the clock and never lose their temper are known as 'computer telephonists', and are the fastest-growing occupational group in the UK today. The nature of their work means that we can find out much more about the way people work and how they respond to their working environment. But does more information make for better working practices? Or is it the twentieth-century version of workplace tyranny?

Factories of the future?

Computer telephonists work in call centres of which there are presently some 7,000, employing over 200,000 computer telephonists ('agents') in Britain. The UK now accounts for half of all the agent positions in Europe. 1.1% of the workforce is employed in call centres, with this proportion predicted to double, 2.2%, by 2001. Significantly, most call centres are located outside London and the South East: the supply of greenfield sites coupled with regional grants and lower wages make migration of large tele operations like British Airways ticket sales and London Electricity enquiries inevitable. Regional accents are also important: studies show that the public perceives the Scottish accent to convey reliability, while other accents, such as the Brummie twang, tend to be associated in some people's minds with criminal tendencies!

Most call centres deal with incoming calls: changes in the ways businesses work, such as banks and travel companies, means that more and more work is done over the phone. It's more than once that I have called mail order firms at midnight to order the children's clothes; busy people need 24-hour shopping. In the centres, the agent answers the phone call routed to him or her and simultaneously uses a computer to process the information. At most centres, calls are 'force fed' – the agent has no control over whether or not to answer and as soon as one call is over another is put through. All time is monitored – whether the agent is involved in dealing with calls, 'wrapping up' or unavailable for other reasons. The technology that makes this possible is called ACD – automatic call distribution.

Total control

The possibilities for monitoring behaviour and measuring output in call centres are amazing to behold – the 'tyranny of the assembly line' is but a Sunday school picnic compared with the control that management can exercise in computer telephony. Indeed, the advertising brochure for a popular call centre software package is titled TOTAL CONTROL MADE EASY. Critics refer to them as *new sweatshops and battery farms*. Agents' activities are monitored in real time by the supervisor. Real time screens display status information such as the number of existing calls in queue, how long the oldest call has been waiting, how many agents are on calls and how many are logged out or unavailable. *Schedule adherence monitoring* allows the supervisor to see whether agents are adhering to what they are scheduled to be doing at any given moment. There is also, in most centres, the large, LED display looking down on the agents as a further reminder of their aims; the number of calls waiting to be answered in 6-inch-high red letters is a big brother from which no-one can hide.

Bentham's vision come true?

Over 200 years ago, Jeremy Bentham put forward a design for the ideal prison, the *Panopticon*, and more recently Foucault used this composition as a metaphor for the coming workplace. For call centres, Bentham's Panopticon was truly the vision of the future and call centres are the epitome of what Foucault had in mind:

All that is needed, then, is to place a supervisor in a central tower and to shut up in each cell... a worker... They are like so many cages, so many small theatres, in which each actor is alone, perfectly individualised and constantly visible... Visibility is a trap... Each individual is securely confined to a cell from which he is seen from the front by the supervisor; but the side walls prevent him from coming into contact with his companions. He is seen but does not see; he is the *object of information, never a subject in communication... this invisibility is the guarantee of order... there are no disorders, no theft, no coalitions, none of those distractions that slow down the rate of work, make it less perfect... power should be visible and unverifiable.* (Discipline and Punish, 1977)

In call centres the agents are constantly visible and the supervisor's power has indeed been *rendered perfect* – via the computer monitoring screen – and therefore its actual use unnecessary. Yet with no apparent trace of irony, some commentators stress the advantages of this process to the agent: *the benefit to the representatives is freedom from uncertainty... management can state clear performance objectives and use the adherence statistics as one way to provide clear and quick feedback on each individual's attainment of these objectives.* (Voice Processing, May 1994)

The process of reward

The 'industrialisation' of this white-collar work – the possibility for complete monitoring of input and accurate measurement of output – has brought with it a whole new way of rewarding employees, which we normally associate with traditional manual work. Straightforward monthly salaries are giving way to bonus systems, and 24-hour opening brings with it a plethora of overtime shift premiums hitherto unknown in the office. Our studies of computer telephonists have focused on incentives: in particular, the way in which similar organisations choose different payment and the effects of these payment systems on financial and industrial relations outcomes, such as productivity and turnover.

Whether it is better to pay workers time rates or piece rates (per hour or per unit of output) is a question that, perhaps surprisingly, has received little attention in Britain since the reports of the National Board for Prices and Incomes in the 1960s tackled the problems of wage drift. However, in the US today, there is a body of work known as the *new economics of personnel* (NEP) which analyses the choice of payment systems in a cost-benefit framework, and tries to predict why particular firms choose particular ways of paying and motivating staff.

Choosing the payment system

Ed Lazear, a major proponent of the NEP approach, distinguishes between performance related pay (PRP) and basic salary. Under PRP, such as piece rates, there is 'synchronisation between output and compensation'. Thus, under PRP, one period's output or performance influences the pay received in that same period. By contrast, under the basic salary approach, workers' pay is independent of this period's output or performance.

The most common explanations for the incidence and extent of PRP turn on measurement and monitoring costs. When monitoring behaviour and effort is costly, the firm is less likely to use standard time rates or salary and more likely to use an output or performance-based pay measure. Alternatively, when the cost of measuring output is high, the organisation will use time rates. Of course, such predictions are not the exclusive of preserve of NEP. For example, Marx noted that PRP will be used when monitoring behaviour and effort is difficult and that individuals on piece rates will receive higher pay than those on time rates. And the British institutional writers of the 1960s such as Gowler and Lupton anticipated many of the NEP predictions in their *contingency theory* approach. Even Julius Caesar boosted the efficiency of the Roman army by instituting performance related pay in lieu of booty.

There are at least thirty times as many computer telephonists as coal miners in Britain today; more people work in this sector than in coal, steel and vehicle production put together.

In addition to monitoring input and measuring output, NEP considers three other categories of variables as playing a role in determining payment systems: product market characteristics such as quality/quantity trade-offs and the extent of competition; labour market characteristics such as union recognition, length of tenure and pay the employee could earn elsewhere; and the nature of the job, such as the span of managerial control, workgroup size, team production and technical change.

Call centres: the empirical test

Call centres provide us with a marvellous opportunity to test the NEP approach to choice of payment system because of the ease of monitoring input and measuring output. We are therefore able to examine the theory in the light of empirical evidence – something which very few studies have thus far been able to do. Most econometric studies have to use proxies for the ability to monitor input such as, for example, workplace size; by contrast, for call centres we can observe and report the actual process of monitoring and supervision, and so our evidence relates directly to what the theory actually predicts rather than some imperfect proxy variable.

We've conducted detailed case studies of three call centres. The first is an executive agency (EA) which provides information technology to support social security provision. Here we have focused on the service help desk which ensures that customers' queries are dealt with promptly. The help desk employs 80 people and receives nearly 600,000 calls per year. Calls must be answered within 15 seconds, calls are logged, and priorities are agreed concerning resolution time. The help desk agent follows a script on his or her computer which makes sure that the problem can be accurately identified. The agent then contacts the service providers who liaise with the customer via the agent, enabling the agent to resolve and close the incident.

We also looked at a market-tested department of a London borough which collects parking and clamping fines via credit cards (PK). This organisation employs 27 agents and deals with over 400,000 calls a year. Calls must be answered within 15 seconds, logged and the caller persuaded to part with a credit card number within 170 seconds.

Our third case study was the classified advertising department of a large daily newspaper with a circulation of half a million and a readership of 1.2 million (AD). The 40 employees who we studied deal with customers who phone in wishing to place an advertisement, advising callers on appropriate wording and style. They must also possess layout and other computer skills to prepare the advert for onward transmission to the composers.

Spot the differences...

On the face of it, the jobs we looked at seem very similar. Yet we found that the organisations use an array of different

Call centres we can observe and report the actual process of monitoring and supervision, and so our evidence relates directly to what the theory actually predicts rather than some imperfect proxy variable.

payment systems. EA make some modest use of PRP (up to a maximum of 7% of the basic salary). The PRP element is linked to each individual's performance, and is consolidated each year. There is no longer automatic progression up a pay scale; so for most employees the consolidated PRP means an annual pay rise not much different from that provided under the old system. PK's approach is in sharp contrast to this. Although any one individual's performance is wholly unrelated to that of anyone else, and in spite of the fact that agents have no information about the performance of others, PK has a team-based PRP system, with the PRP element accounting for up to one fifth of total pay. None of this significant proportion of total pay is linked to individual effort. AD has a PRP system which draws on elements of both the other schemes: there are individual and team-related components. But the most striking feature of the AD approach is the size of the PRP element, which can be as high as 53%.

...and explain them

The underlying theory of the *new economics of personnel* ought to be able to explain satisfactorily why the element of performance related pay varies so widely among organisations which offer similar opportunities for monitoring workplace performance. In fact, the differences in the ratio of PRP to basic pay we have identified are, for the most part, easily explained by the relative costs and benefits of measuring output and monitoring input. Consider our classified advertising department, AD. Here, it is output (revenue) that matters. Incoming calls are not force-fed and there is no

A centre with more intense supervision (relatively fewer agents per supervisor) and regular appraisal has better productivity and financial performance, lower labour turnover and higher pay than one with less intense supervision.

time limit on calls – rather the emphasis is on customer service in order to generate revenues to the newspaper. All targets for the team and individuals are defined in terms of output. Both management and agents expect individuals and teams to reach the minimum targets comfortably: thereafter, the incentive structure is highly geared to encourage those targets to be exceeded. Technology may make it easy to monitor calls, but in this instance it is the output measurement which dominates – hence a PRP structure encourages agents to exceed targets.

By contrast, at EA, the agents are intermediaries: their input has an influence on, but does not actually determine, the time taken for the incident to be resolved – the output. EA monitor the behaviour of the agent very thoroughly, collecting information on telephone responsiveness, the number of calls abandoned, agent availability, short calls, calls taken, ongoing calls, length of call, time taken to assign incidents, correct assignment of incidents and correct use of call base. NEP predicts that time rates will dominate when the emphasis is on monitoring inputs rather than measuring outputs, and this prediction holds true for EA.

In the case of PK, however, the job is completely individual-based, and no employee has any knowledge of the performance of other employees; yet the PRP assessment is entirely team-based. Although this appears to go against the predictions of NEP, one explanation could be that PRP is actually a cover for rewarding agents without disrupting the wider local authority job evaluation scheme.

The impact on performance

But we haven't confined our examination of call centres to the three case studies outlined above. We also conducted a postal survey of 250 call centre managers. We had 105 completed questionnaires, a 41% response rate which is high for a postal survey. The aim of this survey was to examine the associations between three sets of variables: the type of payment system, the appraisal and monitoring arrangements, and the characteristics of the labour and product markets; and four performance outcome variables – productivity, financial performance, pay and labour turnover. Again taking NEP as our theoretical framework, the performance of the call centres whose managers responded to our survey was analysed using regression analysis.

Employment in our sample ranged from 3 to 1,500 with an average of 167. Nearly three-quarters of the centres used ACD technology to 'force feed' calls to agents. Opening times ranged from 35 to 168 hours a week with an average of 93 hours. One quarter of our sample, the largest single group, were in the financial sector; then came utilities (15%), helpdesks (15%) and travel operations (14%); the remainder were in telesales, home shopping and consumer products.

It is clear from the survey results that supervision and appraisal practices have a profound influence on centre performance. A centre with more intense supervision (relatively fewer agents per supervisor) and regular appraisal has better productivity and financial performance, lower labour turnover and higher pay than one with less intense supervision. As we've already seen, technology – particularly the use of ACD systems – makes monitoring agents' effort and performance easy in call centres. Numerous indicators of productivity exist such as time taken to answer calls, time taken to deal with them, the number of lost calls, and so on. What our survey results show is that these monitoring possibilities have to be blended with proper supervision and appraisal. This may in turn result, for example, in the setting of clearer targets, which has been consistently shown to improve performance.

But another of our key findings showed that performance related pay by itself is insufficient to enhance centre performance: only team-related PRP or a combination of individual plus team-based PRP will have an impact. Only 9% of centres in our sample have adopted team-related PRP, yet these organisations perform significantly better than others on both the productivity and financial performance indicators. Our case study evidence suggests two reasons why team-based payment systems are important. First, the monitoring possibilities render agents' activities transparent, making the free rider problem less likely to arise. Second, peer group pressure does matter, and operates along the lines of a 'gift exchange' model. Work group norms develop, and each employee values fair treatment for him/herself. Pay inequality within a group may be perceived as unfair and thus lead to reduced effort.

Interestingly, the potential maximum PRP available is unrelated to performance; rather, it is what is actually paid that matters. If a centre uses PRP it only achieves superior performance if its system yields a high average actual rather than potential payment relative to basic pay. Thus performance is unaffected by whether or not the PRP system is highly geared or not. This is because a highly levered system of PRP is much more sensitive to changes in performance: in an extreme case, for instance, PRP could account for between 0% and 100% of basic pay, but it might be very difficult to achieve high PRP payments in practice. A scheme designed to offer between 5% and 15% might be more effective if most employees could expect to obtain the maximum. Those call centres with PRP payouts above 8% of basic salary have better productivity and financial performance than those paying less than this.

Some subsidiary results from our survey analysis are also worth noting. Competition in product markets, for instance, does make a difference. Those centres which face intense competition have higher productivity and worse financial performance than those with modest or no competition. And larger centres have higher productivity and better financial performance but, surprisingly, lower pay.

But what about the workers?

It's already clear from our findings that call centres, and the huge amount of data they can provide, are a goldmine for those trying to find out more about what motivates people at work, and how to organise the workplace more efficiently. But what about the people employed in these centres, with their closely monitored and controlled working environment? Are they the factory sweatshops of the future?

A formal study of employee attitudes is next on our research agenda. But case study visits have provided the opportunity to talk at length with call centre workers. Perhaps surprisingly, we have met with some very positive feedback. Employees appreciate the higher rates of pay they receive in call centres, and seem to become quickly acclimatised to the high levels of monitoring. There is a problem of 'burn out', however: eighteen months is usually about as much as a computer telephonist can cope with. But these are only initial impressions; in the coming months we shall be looking in detail at how agents view their jobs and the links between their perceptions and their performance.

The workplace of the future

There are at least thirty times as many computer telephonists as coal miners in Britain today; more people work in this sector than in coal, steel and vehicle production put together. Our focus on these new service jobs is designed to contribute to a move in industrial relations research towards emerging forms of employment relationships and away from traditional preoccupations with male, full-time, unionised, manufacturing jobs. The call centre provides us with an excellent backdrop against which to study employee relations – but we'd better hurry before they're replaced by the Internet!

Sue Fernie is a Research Officer at the CEP. She and **David Metcalf** are completing a book on call centres which will be published in the autumn.

Those centres which face intense competition have higher productivity and worse financial performance than those with modest or no competition. And larger centres have higher productivity and better financial performance but, surprisingly, lower pay.

A Euro wish

In a few months' time, European heads of Government will decide which countries will be in the first wave of those joining economic and monetary union – EMU – which begins on January 1 next year. The British Government has already said that the UK won't be among them. In the first of our guest columns, Bridget Rosewell, chairman of Business Strategies Limited, argues for early British entry to EMU.

There are many tales with which to frighten the children in the current Euro-debate. And some of them are indeed frightening. There is the potential for the complete collapse of the European economy as the new single currency goes soft and buckles under the different strains being put on it. There is the equally frightening possibility of persistently high unemployment as a result of a lack of flexibility resulting in social tension and disaster. The backwash from economic shocks – from oil prices rises to Asian economic disaster – might require different responses in different economies which cannot be delivered. Any of these possibilities conjures up nightmares of both political and economic dimensions.

Then there are the dreams. The dreams of a European federation which is able to stride confidently on a world stage, the dream of an open and transparent market of over 300 million people which could operate as successfully as the USA and have a similar hegemony. In such a market there would be scope both for economies of scale and niche marketing, for technological advances to take root more quickly and for firms of all sizes to take advantage of new opportunities. The nation state begins to be less important, while closer integration between communities grows organically.

At first sight, and very much in line with the human condition, the dreams look pie in the sky, while the nightmares seem all too feasible and realistic. And it is also pretty easy to conclude that it is not really a good idea to start from here. The *grand projet* of European unity is much grander than any pyramid in the Palais du Louvre and also much more fragile, lacking the complex framework of scaffolding which holds up that structure.

But here is where we are. And there are some fairly simple propositions which might enable us to look at the rest of Europe with our eyes open rather than in a dream state.

The role of trade

One of the most fundamental is about trade. Industrial capitalism is driven by trade. Trade has allowed economic growth to take place, made possible economies of scale and scope and encouraged technical innovation. Human societies are defined by the amount of trading that they do with one another, and they have been getting on with it from prehistoric times. Certainly, trade has benefited some more than others, but it has also removed the threat of extreme poverty from large sections of the world's population. The growth of trade requires markets, and for those markets to offer new opportunities. This is the prize offered by a successful single market in Europe.

So the question is whether such a market can be achieved without price transparency and a single currency. It seems unlikely. Cross border transactions remain problematic. Yes, you can pay with a Eurocheque for transactions below a certain value. But try cashing a cheque written in sterling at a French bank. You will be charged at least three days' interest on the amount while the cheque clears. And it is nonsense to suggest that hedging can deal with *all* currency risk. Not only does it cost money, but it may not be available for the required period. Estimates suggest that these costs amount to only half a per cent of GDP, hardly enough to get excited about. On its own, this is absolutely true.

However, it is not the cost but the perception and the time and trouble which matter. Compared to trying to grow your own business in your own currency, those extending their business activities 'abroad' face transactions costs, currency risk as well as market risk. Remove the transaction and currency risk and it becomes much easier to establish

The dream of an open and transparent market of over 300 million people which could operate as successfully as the USA and have a similar hegemony.

what the market risk actually is. Are these potential customers really any different from those in the 'home' market? Maybe not. But you need to clear all the other dross out of the way in order to be able to tell.

So one proposition concerns the benefits of trade. We might even be able to strengthen this proposition by suggesting that in the present period the nature of trade is changing. More services and intangibles are being traded, more knowledge crosses boundaries. In these circumstances, the larger the field on which you have the opportunity to develop such markets, the less likely you are to be left behind.

Economic flexibility

The second proposition concerns the dreaded flexibility – which the UK apparently has, but which those Europeans on the other side of the Channel do not. If the rules of engagement are different in different parts of the European mega-economy then the reactions in the face of shock will also be different. Let us predicate, for example, that there is melt-down in the Far East. This deflationary shock will require a policy reaction in Europe. It might also be argued that in the sclerotic, social democratic countries of continental Europe, with their high levels of support for the unemployed, this will mean that huge injections of spending power would be necessary to bring their economies back into balance. In the UK, on the other hand, adjustment would happen more quickly, and hence a smaller response would be appropriate.

This is the nightmare side of the dream. And it is a real problem. It is, of course, clear that the European countries have not achieved the full convergence which would make monetary union easy. Nor are they ever likely to. There will always be variation across the continent – indeed, there is in the US too. Thus policies will always work better in some places than in others. This is a reason for caution and for recognition that there is an issue here. But it's very easy to say that the potential for shocks and the variation in the economies mean that nothing should be done. If it is the case that a larger and more integrated and transparent market means that people can and will be better off, then it also follows that their economies will be better able to withstand such shocks, and policy will also be able to protect the losers more effectively.

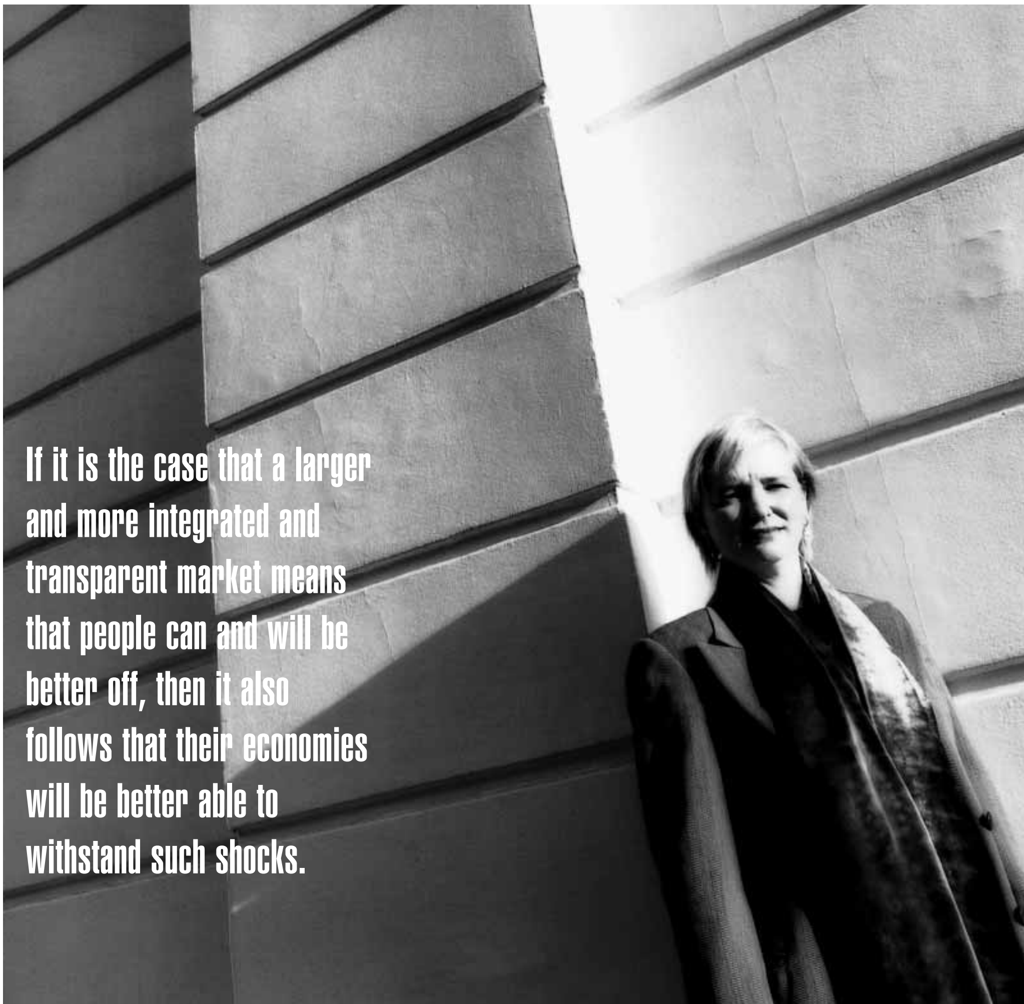
Seeing into the future

Finally, there is the prediction problem. Each forecaster has a model of the economy and can run stabilisation scenarios of various sorts. They are all probably irrelevant. A change of this nature will set in train changes in the behaviour of economic agents which existing models have no way of handling. There will be step jumps as perceptions shift and small changes can easily lead, over time, to large differences in outcome.

That is why this debate is both so important and so difficult – the usual rules do not apply. It is the contention of this article that the prize of a larger, transparent market is worth the risk of our ignorance of how things can and probably will go wrong. This conclusion is based on the long sweep of economic development. It does not mean that it is easy, or that the current definition of the Stabilisation Pact (to take but one example) is correct.

But it does mean that if the UK hides its collective head in the sand and refuses to get on the train – because the wheels might fall off; or to join the party because the ground might be dangerous; then it might get towed off into the mid-Atlantic and left there to rot like some outdated drilling rig. Even if the party does get a little wild, I'd rather live a little first.

Bridget Rosewell is Chairman of Business Strategies Ltd and a special adviser to the Treasury Select Committee of the House of Commons. She was formerly a member of the Treasury Panel of Independent Forecasters.



Not for the foreseeable future

Ruth Lea, Head of Policy at the Institute of Directors, takes a different view of British membership of EMU: here she explains why – on economic grounds – she opposes early entry.

Just in case what follows leads to any misunderstanding, let me say at the outset that I am a pro-European: I support British membership of the European Union. But I am a sceptic when it comes to economic and monetary union in Europe. I believe that early membership of EMU would be wrong for Britain. It should be ruled out for the foreseeable future.

So why not leave the EU?

Unlike some critics of EMU, however, I don't see my views on EMU and EU membership as being in conflict. I don't support the argument that if the UK is not going to join EMU we should leave the European Union. Such a drastic move would be against British interests on economic grounds alone. The other EU countries are now enormously important to us as trading partners: 60% of our visible trade is with the EU, for instance.

EMU membership would mean the Bank of England no longer making interest rate decisions in the light of Britain's specific needs.

Britain's EU membership has also been a major contributing factor to our outstanding success in attracting inward investment. I saw this at first hand when I dealt with the promotion of inward investment in the 'Invest in Britain Bureau' of the Department of Trade and Industry. I have little doubt that if Britain were to leave the EU many of the foreign companies which have invested here would feel betrayed and pull out.

EMU is different

But economic and monetary union is a different matter altogether. From January 1, 1999, the European Central Bank (ECB) will be taking the decisions about the short-term interest rates that play such a critical role in the British economy – more so than in any other European state. EMU membership would mean the Bank of England no longer making interest rate decisions in the light of Britain's specific needs. The ECB would make such decisions for the whole EMU area according to the needs of the region as a whole.

Of course, if I felt that the ECB decisions could make the 'right' decisions for the British economy, I would feel decidedly less nervous about British membership. I am, however, convinced that that the ECB would be highly unlikely to take the right decisions for Britain. Not out of spite or malice – but because it couldn't. The ECB decisions would almost certainly lead to interest rates that were too high (leading to recession) or too low (leading to inflation and instability) for the UK.

The threat to economic stability

The British economy has been very well-managed over the past five years;

and I am optimistic that the newly semi-independent Bank of England will prove a force for stability in future. This 'treasure' must not be thrown away by entering EMU before we are clear that the ECB is in a position to manage our economy as well as British institutions now can.

There are other tools of macroeconomic management besides changes in short-term interest rates – principally fiscal and exchange rate policy. But we already know that within EMU there would be major constraints on fiscal policy (through the EU's Stability and Growth Pact); and, in any case, fiscal policy is inappropriate for economic 'fine tuning'. And as far as the exchange rate is concerned, it goes without saying that EMU would mean the end of Britain's ability unilaterally to influence the value of its currency. So it's clear that joining EMU would effectively hand over the management of the British economy to EU institutions.

Britain is different from continental Europe

At the heart of the problem is the extent of the differences between Britain and the continental European economies. These differences were clearly outlined in the British Treasury document *UK membership of the single currency: an assessment of the five economic tests*. This was published on 27 October last year, to coincide with the Chancellor's statement setting out government policy on EMU membership. Mr Brown said that the UK should not join until five tests – cyclical convergence, flexibility, beneficial for investment, right for the City of London, and helpful for growth, stability and jobs – had been satisfied.

The cyclical difference is the most obvious and perhaps most important. The UK economy is hopelessly adrift from the continental European cycle – indeed, it behaves more like the fifty-first state of the US than a member of the EU. For this reason the UK needs different interest rates from the rest of Europe: a requirement that the ECB, with its 'one size fits all' interest rate policy, would be in no position to deliver.

But there are other structural differences which would tend to pull our cycle apart from the continental European economies even if, by some freak, we managed to bring our economy into line with theirs. Our economy is much more sensitive to movements in short-term interest rates, particularly because of the high incidence of variable mortgage rates in Britain, than the other prospective members of EMU. Once the UK was subject to ECB-determined interest rate movements, the likelihood is that the UK economy would move out of line with the rest of continental Europe.

Britain also has a much more diverse pattern of trade. Half of the UK's current account transactions are with the other countries of the EU – far more than when Britain first joined the EEC in 1973. But that still means that half of the UK's transaction is with countries outside the EU. And 15% of Britain's visible trade is with North America – a much greater proportion than other European countries. If, for example, the US economy were to go into recession, the British economy would be disproportionately affected, and would need more of a monetary offset than the other European countries. In addition, Britain remains a significant producer of oil. A sharp rise in oil prices would have very different effects on the economies of continental Europe than on the UK – and would require different policy responses.

Resolving the differences

Can these structural differences be resolved? And if so, when? These are impossible questions to answer. We don't know how continental European economies will change; how Britain will change; or whether a UK government will start to manipulate interest rates and/or fiscal policy in an attempt to align the cycles more closely. It's worth noting, however, that there was nothing of substance in Gordon Brown's statement on preparations for EMU which would shift the British economy towards those of continental Europe. And any changes which the government were to make would be unlikely to have reconciled the economic differences sufficiently by the early years of the next Parliament. This suggests to me that the government's five tests are a smokescreen. What the Labour government seems really concerned about is the approval of the 'people' and whether Ministers could win a referendum to take Britain into Europe and so end the UK's isolation (as they perceive it) in the world.

Worth the effort?

It is important to remember that there would be some economic advantages for Britain in EMU membership. Transactions costs for European currencies would be eliminated. Exchange rate volatility for trade within the EU would disappear. And there are political implications for Britain in staying out of EMU – which is, after all, a major step towards political as well as economic integration.

Nevertheless, I remain convinced that we should not even contemplate entry until we are absolutely certain that the ECB can manage the UK economy as well as we can manage it ourselves. We should see how EMU develops, at least over one cycle, to see whether it is a sustainable success. We must be convinced that the major economic differences between the UK and the other EMU members have been resolved.

As I've said, it's impossible to say how long this will take. But I can't see Britain being ready to join EMU for the foreseeable future: and probably not for at least ten years.

Ruth Lea, now Head of Policy at the Institute of Directors, is a former Chief Economist at Mitsubishi Bank.

Our economy is much more sensitive to movements in short-term interest rates, particularly because of the high incidence of variable mortgage rates in Britain.

Tackling the skills gap: are we qualified?

Hilary Steedman has written extensively and influentially about training and skills acquisition, and on the problem of low skills in particular. Here she argues that Britain faces a greater challenge than most countries – a challenge which both employers, government and individuals must meet – and proposes a radical new solution to meet that challenge.

British employers have long complained about low literacy and numeracy standards among the workforce from which they have to recruit staff. There can now be no doubt that they are right. A considerable body of evidence published over the past two years shows that Britain has a more acute problem with low skills – among both young people and adults – than any other industrial country except the United States. This is a problem the new Labour government is at least as committed to tackling as its Conservative predecessor. But it's clear that tackling this problem will require enormous effort – and a change of attitudes – on the part of government, employers, and individuals.

The scale of the problem

In 1996 the then Conservative government published a report based on research carried out at the Centre for Economic Performance which claimed that Britain – and the US – had a much more serious problem of low skills than other European countries or indeed an Asian country – Singapore[1]. Those findings have now been confirmed by an authoritative survey published in October 1997 by the Office for National Statistics[2]. Britain does indeed have a low skills problem and it shares that problem with the United States.

The findings of the British studies have been reinforced by the OECD's *International Adult Literacy Survey (IALS)*[3] which has now produced results for seven countries – Canada, Germany, the Netherlands, Poland, Switzerland, the US and Great Britain.[3] In each country a randomly

by Hilary Steedman

selected national sample of adults aged between 16 and 64 completed tests designed to assess literacy on a scale ranked 1-5. Level 1 denotes a very basic level and 5 denotes the sort of literacy skills that might be associated with a university graduate. In keeping with this more sophisticated definition of literacy – viewed as a continuum rather than as a condition that adults either do or do not have – three separate literacy scales were used to assess how well adults could use printed and written information to function in society. The prose scale tested the ability to extract information from a piece of continuous prose – for example, at Level 1 the task was to interpret instructions on a box of aspirin – while the document scale tested ability to cope with the sort of text found in the workplace. The quantitative scale tested ability to apply arithmetic operations to numbers embedded in printed materials: at Level 1 the task was to perform a single operation such as addition for which the problem is already clearly stated or the numbers are provided.

The IALS for Great Britain was carried out two years later than the main study covering the other six countries. We are therefore only now in a position to assess the British performance against that of other advanced industrialised countries. The results show a significant gap between the other West European countries – Germany, Sweden, Switzerland and the Netherlands – where only a small proportion of the population falls into the low skills category, and the US and Great Britain where more than one fifth of the population falls into this category (Figure 1 right).

At the other end of the scale, levels 4/5, the British performance is closer to the international average – only Sweden and Germany have higher quantitative literacy scores than Britain. Britain's most noticeable deficit comes at the next level down, Level 3, the high intermediate skill level. At this crucial level, the gap between Britain and the West European countries is at its greatest – only the US has a similarly low share of the population at the high intermediate skill level (Figure 2 right).

Education and literacy aren't the same

Measured by years of schooling and qualifications gained, younger age groups in Britain are considerably better educated than older age groups. So we might expect to see higher proportions of these younger age groups in all literacy categories except the lowest. Yet the IALS survey found no significant difference in the British sample between the performance of older (46-55 year olds) and younger age groups – except at the highest level. At the high end of the literacy scale (Levels 4/5) proportions in the younger age groups are slightly higher than in the older age groups. This suggests that more years of schooling and a greater number of qualifications do not automatically improve literacy and numeracy and so must lead us to question whether more education is effective in producing the ability to apply simple knowledge and understanding in practical situations.

The IALS provides a unique tool which makes it possible to confirm positively previous diagnoses of the strengths and weaknesses of Britain's skills stock. The greatest deficiency is at the lowest level and the greatest strength is at the highest level of literacy competence. The increase in years of education consumed and qualifications awarded noted in, for example, the government's monitoring of progress towards the National Targets has not produced a corresponding increase in literacy competences.

Low skills hurt the individual

Low levels of literacy contribute to preventing integration into the economic and social mainstream. The IALS provides additional evidence to add to what we already know about poverty, unemployment and low skills. A third of the unemployed and over a half of those who had withdrawn

Figure 1 Literacy level by country
Percentage of population at Level 1

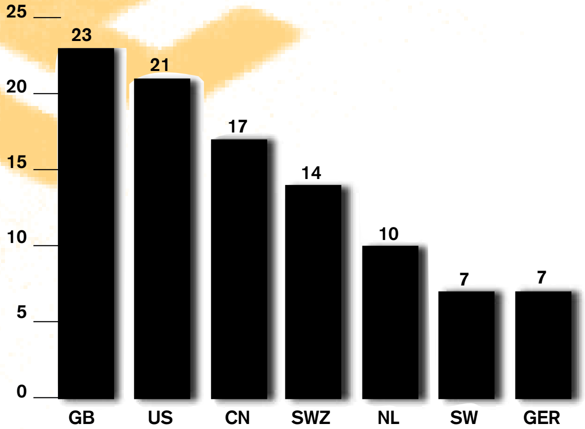
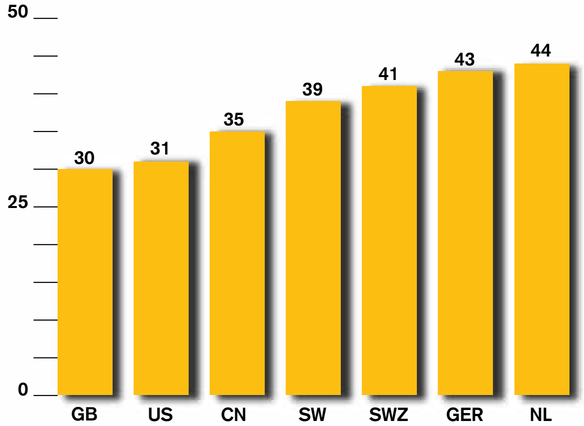
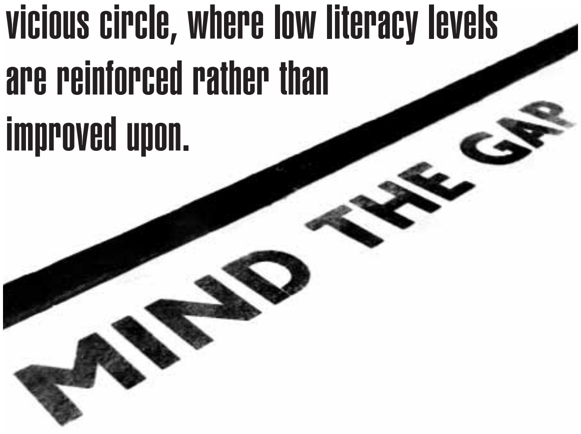


Figure 2 Literacy level by country
The intermediate skills deficit proportions scoring at Level 3 IALS quantitative literacy scale



Note: SWZ German-speaking Switzerland

At home, a combination of poverty, lack of aspiration and willingness to make the much greater effort required mean that the low-skilled are unlikely either to read regularly or use a computer. They are thus caught in a vicious circle, where low literacy levels are reinforced rather than improved upon.



from the labour market scored at the lowest literacy level. And only around one fifth of those at this literacy level had incomes which placed them in the top half of the income distribution.

The low-skilled are the least likely to receive training at work or to be exposed to workplace tasks which allow them to improve or update their skills. The low-skilled who are in employment engage in work-related reading or writing activities much less frequently than employees who score at higher literacy levels. Less than 10% use information from computers at work at least once a week compared to nearly 40% for those at Levels 3/4/5.

In the home, the low-skilled are also much less likely to use a personal computer or read a daily newspaper. In other words, whereas higher skill groups engage in activities at work and at home which reinforce the literacy competence already acquired, people with low skills don't benefit, either because of the nature of their job, or because they are reluctant to take up what training opportunities are on offer. At home, a combination of poverty, lack of aspiration and willingness to make the much greater effort required mean that the low-skilled are unlikely either to read regularly or use a computer. They are thus caught in a vicious circle, where low literacy levels are reinforced rather than improved upon.

Employers don't like low skills either

Employers have long moaned about the problems which low levels of literacy and – to a lesser extent numeracy – cause in the workplace. In 1996 alone, three authoritative surveys of employer views on low literacy levels were published. The employer group *Industry in Education* claimed that '*Employers are widely critical of candidates' 'everyday life' literacy and numeracy, and doubt the value of GCSE 'passes' in guaranteeing these abilities*'. The Institute of Directors Business Opinion Survey found that '*a staggering 79% of the survey were concerned [about literacy and numeracy in job applicants] and the number rose to 89% in some regions*'. A survey of multinational companies carried out by the Department of Trade and Industry for the 1996 Skills Audit asked companies to evaluate the literacy skills of adults and new entrants in five of the companies in which they operated. As in the IALS, Germany scores higher than both Britain and the US on literacy standards of both young and adult employees; and numeracy is also substantially higher in Germany. Literacy and numeracy standards in the US are rated as almost identical to those in Britain – again, a judgement remarkably similar to that provided by the IALS.

But they could do more to help

Yet British employers are also, perhaps unwittingly, compounding the problem. In 1986 the growing impact of international competition on the British economy and the severe unemployment of the early 1980s had created a readiness to countenance change in the way vocational education and training was organised and certificated. Qualifications with their dual role – they are meant to provide both the incentive to qualify and act as labour market signals of skills – were thought to lie at the heart of the British skills deficit. The deficit, it was argued, did not result from the *quality* of the qualifications on offer but from the sheer number of uncoordinated awarding bodies and levels of qualification. This, it was thought, led to a lack of transparency in the system generally and contributed to the low numbers trained.

There was widespread agreement that what was known as the 'jungle' or 'maze' of vocational qualifications should be modernised and rationalised to achieve greater transparency for all users, and the *National Council for Vocational Qualifications (NCVQ)* was set up with this brief. However, what emerged from this process was a new vocational qualification, the *National Vocational Qualification (NVQ)* which, it was intended, should replace all existing certificates. The NVQ is a set of occupationally-based standards of competence defined at three or four levels and designed to be assessed by demonstration of competence in the workplace by workplace supervisors. There is no separate requirement for the more general skills of literacy and numeracy to be developed and assessed for the award of an NVQ.

This 'competence-led' vocational qualification model was heavily supported by employers. It put the definition of standards and control of assessment in their hands. It provided a highly suitable tool or training programme for one of the pressing problems facing British companies in the late '80s – the rapid and cost-effective upgrading of unskilled or semi-skilled employees to adapt to new technology and work organisation. While no direct government subsidy was paid to employers to upgrade employees, the costs of developing NVQs were heavily subsidised by the government.

But by supporting this 'no frills' qualification model, British employers also ensured that those gaining a vocational qualification in Britain would no longer be required to develop and demonstrate reading and writing skills. The message was that, as long as you could do the job, employers were not interested in general literacy skills. This was short-termism on a grand scale and the failure to reduce the low-skilled group to the levels of other European countries must be attributed in part to the clear signal conveyed by the design of the NVQ.

Government is to blame as well

But while employer organisations can be accused of short-termism in failing to provide strong signals on the importance of basic literacy and numeracy for employment, responsibility for promoting a set of qualifications which fail to promote literacy rests with the government. In the European countries – Germany, Switzerland, the Netherlands and Sweden – which emerge from the IALS study with good basic literacy skills, government has taken responsibility for ensuring that vocational training also includes the development of literacy and numeracy. Regulations agreed by government, employer and employee organisations specify that a recognised vocational qualification can only be awarded if literacy and numeracy are shown to be satisfactory alongside more specific vocational skills. Employers do not pay to develop these general skills – the cost is borne by the government and by the individual who will later benefit by increased occupational mobility and capacity for further learning.

Individuals too do not always look to the long-term. For adult learners, particularly those who have not achieved their potential in the classroom, vocational qualifications recognised on the labour market can constitute a strong incentive to start learning again. Objectives will necessarily be short-term – getting back into the labour market – and the longer term objective of improving basic literacy is thought less important. But governments can and should look to the longer term and take action to prevent myopia on the part of employers and individuals which is damaging to the country's longer term growth prospects. The simple model developed in other European countries uses the strong incentive effect of recognised vocational qualifications – which in some countries is enhanced by a link between qualifications and wage differentials – to allow literacy skills to 'hitch a ride' on the back of more specific vocational training for which the individual is often highly motivated.

National Vocational Qualifications have now been in place for ten years. In 1995 the Beaumont Review Group, appointed to review the 100 most heavily-used NVQs, reconsidered some of the fundamental principles on which NVQs had been based. Beaumont used an Occam's Razor approach to recommend that only those core skills (which include literacy and numeracy) required to perform the occupation at the level specified should be included in NVQs. Beaumont *again rejected mandatory inclusion of core skills in NVQs* which must '*take account of employer needs*'.

The (then Conservative) government's response to Beaumont and to serious irregularities which had been uncovered in the awarding of NVQs was to produce proposals for stronger audit and quality assurance systems. Authority over the regulation of NVQ awards passed from the accident-prone National Council for Vocational Qualifications (NCVQ) to a more education-friendly body, the Qualifications and Curriculum Authority (QCA). But no changes were recommended to NVQ criteria so as to introduce separate and distinct key skills units. The development of key skills, including literacy and numeracy as part of the aims or outcomes of an NVQ continues to be at the discretion of sectoral employer organisations (Standard Setting Bodies).

This situation constitutes a true paradox. Almost a quarter of the adult population scores at an unacceptably low literacy level by European standards and employers wring their hands over basic skills. The new Labour government promises a renewed campaign to involve all adults in lifelong learning. But meanwhile, government and employers continue to promote vocational qualifications which do not require the development or demonstration of any sort of literacy or numeracy. This is clearly an untenable position. What are the options?

The Dearing Report on Qualifications for 16-19 Year Olds argued and won the case for providing courses in basic literacy and numeracy and other skills in all publicly-funded programmes of education and training for 16-19 year olds. This means that all those on the new National Traineeships working for NVQ Level 2 qualifications, and all on Modern Apprenticeships, working for NVQ Level 3 qualifications must be given opportunities to develop literacy and numeracy skills and to have them assessed. But the NVQ qualifications remain unchanged by this new policy. There is

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MIND THE GAP

Ministers' response on the issue of key skills for all will show whether they are prepared to defend the long-term interests of adult learners. This means ensuring that insistence on the development of key skills is not confined to qualifications aimed at young people.

still no requirement for literacy and numeracy skills to be developed and assessed in order to gain an NVQ award. And the Dearing recommendation does not, of course, apply to the population aged over nineteen.

Building on the NVQ framework

NVQs have many weaknesses apart from the lack of attention to key skills, weaknesses which can and should be remedied. But they also have important strengths. They have the support of an important constituency of employers and they develop skills and competences relevant to the way jobs are currently performed in this country. For many in work and preparing for work they therefore constitute an objective worth working for. Broadening the content of NVQs to include literacy and numeracy skills should have the effect of motivating many adults who currently have low literacy and numeracy to improve those skills.

The aim should be to include *within* the NVQ framework the key skills currently outside it. This needs to be done without burdening employers with the additional cost of providing and assessing literacy skills training. As is the case in all other European countries and for young people on government sponsored training schemes in this country, costs should be shared between the individual and the government.

A new test for individuals...

It might therefore be more realistic and in line with the pressures on companies and on individuals in the labour market to think in terms of requiring the full NVQ award to be dependent on the individual taking and passing an externally-set test of basic literacy and numeracy – similar perhaps to those developed for the IALS survey. The initiative for preparing for the test and for making arrangements to take the test could rest with the individual rather than with the company (rather along the lines of the theory paper now part of the driving test). Suitable courses and other help with learning could be available from a variety of sources including the new *University for Industry*, the workplace, or a local college. The test could be attempted as many times as necessary for a pass and administered in a variety of local centres.

An additional advantage of such a test is that it would introduce an important element of standardisation into the NVQ award and improve the reliability of the current regime. There might be some difficulty in motivating individuals to take the test in order to achieve a full NVQ. Here, employers could play an important role by referring to NVQs in job advertisements or using them as one of the criteria for job progression. Most important, however, the costs of preparing for and administering the tests would not fall on companies but on the government (development of teaching software, course material, tests and test administration) and on individuals (opportunity cost).

...means a new test for government

But what are the chances of such a measure being adopted? The most recent statements of intent from the new Labour government seem to hold out the promise of progress. The Department for Education and Employment is just completing consultation on post-16 qualifications. The consultation document sets out the government's commitment to 'upgrade vocational qualifications, underpinning them with rigorous standards and key skills'.

But while this commitment appears to promise much, it is worrying that the consultation document holds out the possibility of incorporating key skills within NVQs as a *requirement for their attainment* only to reject it in the next breath with the usual objections about distorting *occupational requirements*, and *disincentives to employers*.

The new government has wisely not closed the door on further development of NVQs and has promised a *continuing process of improvement*. Ministers' response on the issue of key skills for all will show whether they are prepared to defend the long-term interests of adult learners. This means ensuring that insistence on the development of key skills is not confined to qualifications aimed at young people. Improving the ability to understand and communicate in the workplace and in everyday life must become a major objective of the vocational qualifications that are the aim of adults in work and preparing for work.

Hilary Steedman is Programme Director of the CEP's Human Resources Programme.

Notes

1 DfEE and the Cabinet Office *The Skills Audit: Report from an Interdepartmental Group* DfEE London 1996. Green A and Steedman H *Into the Twenty First Century: An Assessment of British Skill Profiles and Prospects* CEP Special Report March 1997.

2 Carey S, Low S, Hansbro J *Adult Literacy in Britain* Office for National Statistics, London: The Stationery Office 1997.

3 OECD/Statistics Canada *Literacy, Economy and Society* OECD Paris 1995. This volume contains results for Canada, Germany, the Netherlands, Poland, Switzerland (German-speaking and French-speaking) and the US. The survey referenced above relating to the UK was carried out two years later but used the same survey methodology.

by Donna Brown

What do I get?

How some employers might benefit from a national minimum wage

As British employers gear up for the introduction of a national minimum wage, Donna Brown reports on research in the CEP which suggests there could, in some instances, be benefits to both sides of industry.

The introduction of a national minimum wage was one of the most specific commitments of the Labour Party in opposition, and it is one which Tony Blair's new government moved quickly to implement after the election in May last year. The Low Pay Commission, charged with recommending how and at what level the new minimum wage should be set, will report in May, and the legislation is expected to be in place by early 1999. Trade unions and low pay campaigners are delighted; employers now recognise, some more grudgingly than others, that they have lost this particular battle. But are they right to see a minimum wage as something they don't like but will have to live with? Or could some of them at least look forward to some positive gains?

The traditional arguments...

The minimum wage debate has tended to focus on the problems of low pay. Setting a national minimum wage, it is argued, will prevent employers from exploiting workers; it should also help cut the cost of social security by saving money on income top-up schemes such as family credit. It may also encourage more people to seek work. But opponents say it will increase employers' labour costs, reduce competitiveness and destroy jobs. They challenge evidence which suggests that few if any jobs will be lost if the right level is chosen.

...obscure other factors

The argument over lost jobs, however, has tended to mean that other factors have been overlooked. In particular, little attention has been paid to the impact which a minimum wage might have on other labour-related costs faced by employers: recruitment and staff turnover. Many traditionally low-paid jobs are either hard to fill, or have a high level of turnover. If a minimum wage were to encourage more people to enter the labour force, some employers could expect to fill vacanices more quickly, saving on both recruitment advertising and other costs, and on the lost output associated with longstanding vacancies. Higher hourly rates in some low-paid jobs might also have a beneficial impact on staff turnover: quite simply, some workers might be more inclined to stay in one job for longer. That also saves on recruitment costs; it might even improve productivity if workers become more committed to their jobs.

Recruitment costs matter

Research at the CEP has examined recruitment costs in sectors which traditionally have a disproportionate number of low paid workers: the hotels and fast food restaurants. In the hotel industry, the total cost of hiring, induction and training was £352 per vacancy; for the fast food business it was £685. Yet the median hotel recruit stays in a job for only ten months. Fast food restaurant staff move even more quickly, staying only eight months in a job. Over a year, then, recruitment costs are a substantial element of total costs. What's more, managers in the Centre's survey estimated that it took eight weeks for a hotel recruit to become as productive as established workers; in fast food restaurants, it takes twelve weeks – nearly half the median length of stay in a job. Productivity in these industries, therefore, is much less than its potential level.

One conclusion to be drawn from these figures would be that firms spend too much on training and recruitment. But lower standards are unlikely to help employers in such competitive industries. Alternatively, firms could try matching applicants more carefully with job vacancies available, so lowering staff turnover and reducing hiring costs as a fraction of total labour costs. A minimum wage could help employers to do this.

Some workers might be more inclined to stay in one job for longer. That also saves on recruitment costs; it might even improve productivity if workers become more committed to their jobs.

Table 1 Changes affecting workers at the food manufacturing plant

Groups affected	April 1995	May 1995	November 1995	May 1996
All workers	Basic food hygiene training introduced. Plant stability guaranteed by company rationalisation.	Trainees and the unskilled receive pay increases significantly greater than the rate of inflation. Other groups see smaller rises.	Change of culture, embracing team briefings. New canteen with 24 vending facilities.	Sick pay introduced. Annual leave accrued from the start date. Annual leave increased from 15 to 17 days. All workers, except trainees receive pay increases above inflation. Unskilled workers deriving the greatest benefit.
Specific group of workers	Line leaders training initiated			

The effect of raising pay: a case study

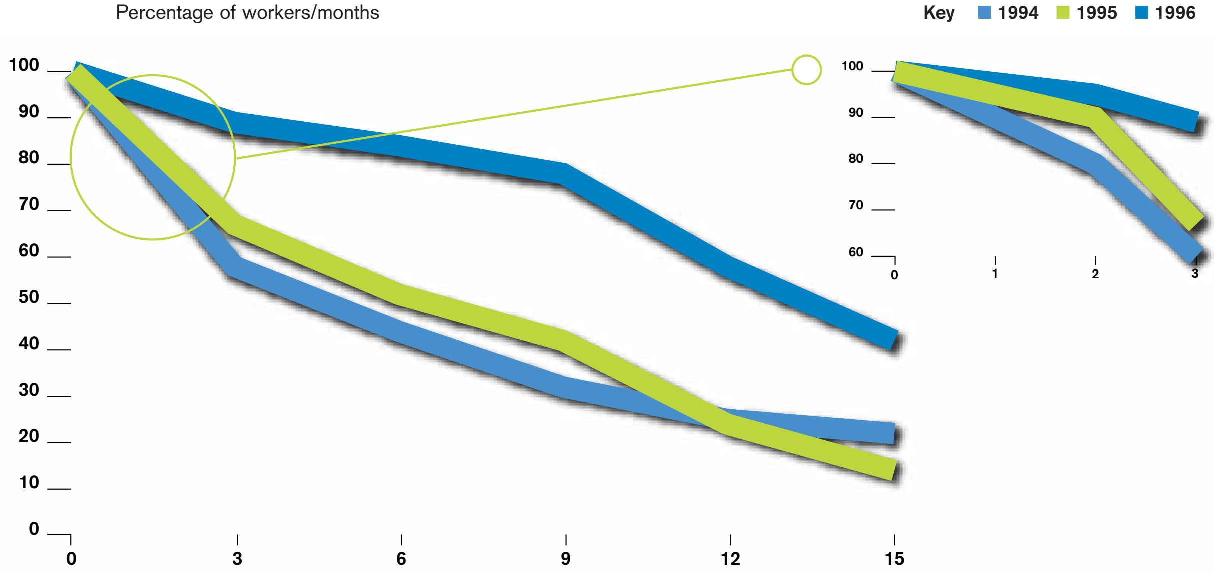
The Centre has also looked at what factors can affect tenure in low paid jobs, by examining the case of a food manufacturing plant in detail. Before being taken over by a national food manufacturer, this plant was typical of many such operations with a large number of low paid workers: average job tenure was low, and the plant's overall performance was poor. The new owners set out to improve the low rates of staff turnover, by altering pay and conditions.

The carrots offered

Table 1 shows the sequence of changes made over a period of thirteen months. In April, the new employers started to change the corporate culture. Basic food hygiene training was introduced for all workers, and training for line leaders was also started. Then in the May 1995 pay round, trainees and unskilled workers got the largest pay rises, 5.5%, or about one and a half times the prevailing rate of inflation; most other workers took a real pay cut, getting increases worth about two thirds of the inflation rate. These deliberately uneven increases were designed to reduce much higher turnover rates among the two worst affected categories of workers.

Then in November 1995, the company introduced further changes to working conditions. Team briefings were

Figure 1 Staff survival rates by year of joining company
Percentage of workers/months



The first three months in a job are the most critical. Of those staff who started in 1994, 60% left during their first twelve weeks.

introduced as part of the effort to change the existing culture. New canteen facilities were introduced, incorporating for the first time twenty-four hour vending facilities to cater for shift workers.

The 1996 pay round once again brought unevenly distributed rises. This time trainees did less well, getting only 1%, at a time when inflation was 2.2%. Semi-skilled staff, skilled workers, engineers and section leaders all had wage rises comfortably in excess of inflation. But by far the biggest rise went once more to unskilled workers, who got 6.5%.

The employers' reward

Figure 1 (left) shows the extent to which these cumulative changes improved staff tenure at the plant. It is clear that the first three months in a job are the most critical. Of those staff who started in 1994, 60% left during their first twelve weeks – a strikingly high figure. In 1995, when the changes started this percentage had fallen to little more than half the earlier level: only 33% left during their first twelve weeks. The improvement continued into 1996 – only 10% left in the first critical period. The figure rose again in 1997, to 20%, but this was still only a third of the 1994 level.

The improvement in staff retention is visible if we look beyond the first three months. The longest period which can be properly compared within the survey is fifteen months. Before the changes in pay and working conditions, only 20% of workers stayed for as long as fifteen months. But of those staff joining in 1996, when most of the changes had been implemented, twice as many, 40%, were still in post after fifteen months.

Better working conditions or more pay?

Sophisticated statistical analysis enables us to determine which of the changes introduced had the greatest beneficial impact on staff turnover. Table 2 (below) shows that all the changes had a significant impact: but that the pay increases in May 1996 (when unskilled workers benefited most) had most effect. This suggests pay rises are more likely to encourage workers to stay in a job than improved working conditions.

Lessons for others?

The Centre's study shows that the recruitment costs for the manufacturer in the case study are lower than many service sector companies we have examined. But at £154 per new recruit, they are not negligible. The plant manager estimated that it takes seven to eight weeks for new staff to become fully productive – pretty much in line with the service industries we looked at. Our results show that currently about one new recruit in twenty leaves the company within the first eight weeks of joining, compared with one in five in 1994. Wage costs have risen, but reduced turnover saves the company in question significant amounts of money.

It's always difficult to draw too many lessons from a single case study. But both elements of the Centre's study suggest that there may be some scope for employers to save substantial sums by improving staff tenure and productivity, especially in sectors where many workers tend to be among the lower paid. For some workers, the benefits of a minimum wage are obvious. It's possible that while less immediately apparent, there may be benefits to some employers as well.

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Table 2 How improved pay and working conditions lowered labour turnover

Time of change	Type of change	Reduction in probability of leaving
April 1995	Training introduced Greater company stability	30%
May 1995	Pay rises, benefitting trainees and the unskilled	25%
November 1995	Canteen and team briefings	24%
May 1996	Pay rises, benefitting primarily the unskilled	49%

by Susan Harkness

Why are part-time women workers losing out?

Women now make up a bigger proportion of the workforce than ever before: but part-time women workers have seen their incomes fall relative to full-time women. Susan Harkness asks why.

It's no secret that the number of part-time workers in Britain has risen dramatically in recent years. That most of these workers are women is also well-known: more women – particularly mothers – have started working at a time when service sector employment has been rising sharply. But one important consequence of these changes has attracted much less attention. While the number of part-time jobs has risen, the quality of part-time work has declined almost as rapidly. Part-time workers have seen their relative earnings fall substantially. Twenty years ago there was virtually no difference between the average hourly earnings of full- and part-time women workers. But in 1994-95 (the most recent year for which full figures are available) part-time women workers had seen their average earnings per hour fall to 69% of their full-time colleagues. The opportunity for women to combine work and family through part-time employment has come at a high price.

Sneering at part-timers?

The popular view of part-time workers is hardly favourable. Part-time jobs are seen as bad jobs, offering low pay and little job security to a poorly skilled section of the labour force. As a result, while part-time work has become a more important component of employment (part-time jobs accounted for fewer than one in twenty jobs in 1951 but one in five by 1991) it has at the same time come to be seen as a labour market problem. It has, for example, been suggested that part-time employment is a form of disguised underemployment; that part-timers are taking full-timers' jobs; and that part-time earnings do little to alleviate poverty or reduce inequality (since these jobs go to women who live in households where there is already another wage-earner). Part-time work has been particularly berated in the face of a secular decline in full-time permanent male jobs. This attitude was summed up in 1994 by John Prescott, now Deputy Prime Minister, who said: *If I want to create employment, should I target full-time men who are on the dole and may never get a job, or should I encourage low paid part-time employment for mostly middle class women?*

Others, such as Patricia Hewitt (now a Labour MP), have argued that part-time work is one of the many new forms of flexible working patterns which we can expect to become increasingly common. By enabling women to combine work and family life, part-time work is likely to be part of a growing labour market trend as women's employment rates generally increase. Significantly, women's part-time earnings have been shown to be increasingly important in keeping families out of poverty.

Men and women go their different ways

The last decade has seen significant differences emerge in the employment patterns of men and women. The number of men in full-time employment has fallen by 5% while the

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number of part-time male workers has more than doubled. Men now account for 15% of all part-time employees – still a relatively small proportion. By contrast, there are now 11% more full-time women workers than ten years ago; but the number of women working part-time has still risen faster, by 15%.

There have also been large changes in the composition of the female workforce, with more women of child bearing/rearing age working full-time (although these women also have the highest rates of part-time employment). Significantly, women over 50 or under 25 have accounted for most of the increase in part-time work. It is notable too that while at any point in time less than one-third of women are working part-time, double that number – three in five women – have at some time been employed part-time (a proportion that stayed constant right through the 1980s and 1990s). Most part-time women have had children (90%, compared with 47% of full-timers).

Free to choose?

The decision to work part-time is, for most women, a voluntary one. Yet there is also a significant minority of women who have taken part-time employment solely because they have been unable to find full-time work. In recent years, this proportion has increased. Figures from the Labour Force Survey show that in 1994, 12% of women aged 21-60 working part-time were doing so because they could not find full-time employment. This is a big jump from 1984 when just 7% of part-time women would have preferred full-time work. Many more part-time women workers would prefer more hours while remaining part-time: 11% in 1980, 17% by 1993. All this suggests rising underemployment amongst female part-timers.

Yet interestingly, there's also substantial evidence to suggest that the reverse holds true for many full-time women. Both the Women and Employment Survey (1980) and the British Household Panel Survey (1994/5) show that a substantial number of women working full-time would prefer to work fewer hours; this proportion has been rising, from 35% in 1980 to 46% in 1994-95. For professional full-time women workers, those figures are even higher: in 1994-95, 55% of professional full-timers would have preferred fewer hours. When we remember that part-time women now earn significantly less per hour than their full-time counterparts, it's hard to avoid the conclusion that part-time women are crowded into low skill occupations because part-time employment is not available in more highly skilled jobs.

But another explanation has been offered for the incidence of low pay amongst part-time employees. According to the International Social Attitudes Survey, levels of job satisfaction are higher among part-time than full-time workers, suggesting that non-pecuniary benefits may offer some compensation for lower rates of pay. Thus, while few part-timers think their job is well paid, they are more likely to

Figure 1 Earnings ratios of PT women to FT women and men

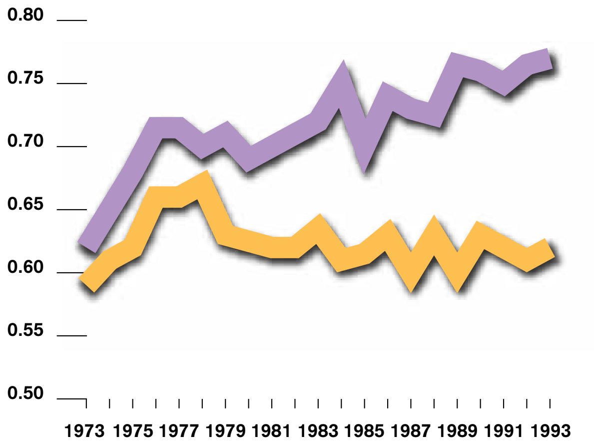
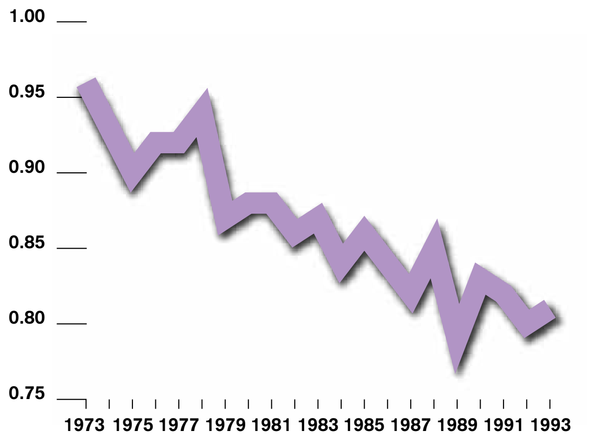


Figure 2 Earnings ratios of PT women to FT women across the wage distribution



report that their job has flexible working hours and good management relations; and fewer describe their job as boring or stressful. Differences in expectations, however, may go some way to explaining these disparities.

Low paid...

So how acute is the problem of low pay among part-time women workers? Back in the 1970s, this was a phenomenon that didn't really exist: both part-time and full-time women had roughly comparable average hourly earnings. In those days, however, all women were considerably less well-paid than men. In the years since then, full-time working women have done a great deal of catching up – their pay relative to that of full-time men has improved significantly. Part-time women, however have seen little change in their

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Table 1 Composition of employment by education and age

	1974/76 Men FT	Women FT	Women PT	1990/92 Men FT	Women FT	Women PT
All Aged 21-60	**100**	**100**	**100**	**100**	**100**	**100**
Degree/Higher	11.7	8.2	4.4	27.3	20.0	10.7
A Levels or 5+ O Levels	13.1	14.2	9.6	19.3	25.3	18.8
1-4 O Levels or equivalent	24.1	21.4	16.8	27.3	31.9	32.2
No qualifications	51.2	56.2	69.2	26.1	22.7	38.4
Age 21-24	**9.3**	**15.8**	**3.8**	**9.2**	**15.6**	**4.0**
Degree/Higher	12.0	11.9	12.1	19.3	15.5	12.4
A Levels or 5+ O Levels	26.3	25.7	14.0	29.4	36.6	21.1
1-4 O Levels or equivalent	28.6	35.1	27.2	40.2	42.0	49.3
No qualifications	33.1	27.4	46.7	11.1	5.8	17.2
Age 25-34	**28.4**	**23.4**	**25.4**	**29.5**	**30.4**	**24.4**
Degree/Higher	15.0	12.4	5.5	29.6	24.6	10.0
A Levels or 5+ O Levels	17.1	17.3	12.7	24.0	31.1	25.0
1-4 O Levels or equivalent	27.2	28.2	24.5	31.2	35.0	45.1
No qualifications	40.7	42.1	57.4	15.2	9.4	19.9
Age 35-49	**37.1**	**35.6**	**44.9**	**41.0**	**38.0**	**48.1**
Degree/Higher	11.5	7.2	4.3	30.0	20.8	12.1
A Levels or 5+ O Levels	11.2	11.0	9.8	17.5	19.1	17.8
1-4 O Levels or equivalent	23.5	17.0	15.2	23.2	29.4	30.3
No qualifications	53.8	64.9	70.7	29.3	30.6	39.9
Age 50-60	**25.2**	**25.3**	**25.9**	**20.2**	**16.0**	**23.5**
Degree/Higher	7.9	3.7	2.6	22.0	13.7	8.2
A Levels or 5+ O Levels	6.5	8.7	5.5	12.1	19.1	14.1
1-4 O Levels or equivalent	19.8	13.0	10.5	24.5	23.1	20.3
No qualifications	65.8	74.6	81.5	41.4	44.2	57.5

Source: General Household Survey

pay relative to men, while their pay relative to full-time women has dropped sharply, as can clearly be seen in Figures 1 and 2 (left). In 1973 part-time women earned an average hourly rate equivalent to 59% of that for full-time men and 96% of that for full-time women. The introduction of the Equal Pay and Sex Discrimination Acts in December 1975 led to a sharp rise in the relative earnings of both full-time and part-time working women.

However, while full-time women saw their relative average earnings continue to increase gradually throughout the following decades, the picture was very different for part-time women. Their earnings gain from introduction of the Acts was quickly reversed; by 1984 their average hourly earnings were only 61% of those for full-time men – barely more than a decade earlier. The following years saw very little improvement in this position; but far more significantly, part-time women saw themselves fall substantially behind their full-time counterparts.

...and low skilled

So do part-time women have fewer skills than other workers? Table 1 (above) looks at the educational attainments of different groups of employees between 1974 and 1992. In the mid-1970s all female workers were much less well-qualified than men, though the differences were less pronounced among younger workers. It's clear that part-time women workers were, at that stage, as well-qualified as full-time women. But by the early 1990s, full-time women workers had improved the level of their qualifications relative to men. There was little difference in the proportion of men

About a fifth of part-time workers still earn amounts comparable to the highest paid full-time women; but most other part-timers are concentrated into low paid and low skilled occupations.

and women under 35 who had a degree or higher qualification: indeed, a significantly larger proportion of men had no qualifications. Full-time women over 35 remained less well qualified than their male counterparts, but the gap was small and considerably lower than it had been in the mid-70s.

But for women working part-time the story is very different. Part-time women workers were better educated than they had been in the mid-1970s: but by the early 1990s, they lagged considerably behind both men and full-time female employees, even after controlling for differences in age composition. This may go some way towards explaining the deterioration in their relative earnings position.

New divisions are opening up

It would be a mistake, however, to see all part-time women as low-skilled and low-paid; the picture is considerably more complicated. Not all part-timers have seen a decline in their relative earnings over the last decade, as can be seen clearly if we look at earnings at different points of the part-time wage distribution. In the mid-1970s about a fifth of part-time women – those in the top fifth of the income distribution – earned considerably more per hour than their full-time counterparts; apart from these, average earnings for full and part-time women were pretty similar right across the job spectrum. But in the following decades not only had part-time women generally fallen behind those in full-time work: but the gap between the two groups of workers widened substantially at the lower end of the pay scale. About a fifth of part-time workers still earn amounts comparable to the highest paid full-time women; but most other part-timers are concentrated into low paid and low skilled occupations.

Thus, much of the gap between part-time and full-time female earnings can be accounted for simply by looking at occupational differences between these workers. Table 2 (below) shows that once we do this the earnings gap is substantially reduced. Indeed, in 1994-95, those in manual occupations earned on average over 90% of the amount received by full timers in the same occupations, while even those in other occupations earned over 80% of the full-time rate.

Table 2 demonstrates that the occupational structure of full-time and part-time female employees is substantially different, and that this difference has grown over time. In 1994-95, for example, many more part-timers worked in personal services (15% compared with 5% of full-time women) and in unskilled manual occupations (13% compared with only 2% of full-timers); while correspondingly fewer worked in non-manual (but not managerial or professional) and professional occupations (42% and 2% respectively compared with 60% and 8% of full-timers). These differences go a long way towards explaining the part-time/full-time wage gap among women. Indeed, we calculate that if part-timers had had the same occupational structure as full timers the part-time/full-time wage ratio would have been 97% in 1977 and still as high as 86% in 1994-95. The actual earnings ratio, for those reporting on their occupation, was just 80% in 1977 and 73% in their occupation, 1994-95.

So what's the explanation?

Modelling some of this data has helped to clarify some of

Table 2 Earnings ratios and occupational distribution

	PT Women/ FT Women	Female FT occupational distribution	Female PT occupational distribution
1977 GHS			
Non-manual – professional and managerial	*	8	2
Non-manual – not managerial or professional	79	60	42
Personal services	101	6	21
Skilled manual	124	9	7
Semi-skilled manual	97	14	9
Unskilled manual	98	3	19
All occupations	80	–	–
1994/5 BHPS			
Non-manual – professional and managerial	90	24	5
Non-manual – not managerial or professional	87	56	54
Personal services	88	5	15
Skilled manual	87	5	3
Semi-skilled manual	111	8	8
Unskilled manual	101	2	13
All occupations	73	–	–

Note: * Sample sizes too small
Source: Family Expenditure Survey

By the early 1990s, there was little difference in the proportion of men and women under 35 who had a degree or higher qualification: indeed, a significantly larger proportion of men had no qualifications.

the causes behind the differences in relative wages which we have identified. It's interesting to note, for example, that in 1980 marriage significantly reduced the likelihood that a woman would work start or continue to work full-time; by 1994-95, it had no discernible impact. Far more significant now is the presence of children. These changes reflect the general increase in female labour force participation, with women today being more likely to continue working after marriage and to take less time out of the labour market after childbirth. It is also notable that a partner's weekly earnings had no impact on the probability of working full-time in 1980, but by 1994-5 this was a significant factor: the lower the partner's earnings, the more likely a woman was to work more hours.

Table 3 (below) shows that in 1980 differences in characteristics accounted for the entire earnings gap, while differences in returns actually helped to reduce the wage differential. Thus in 1980, while part-timers earned an average wage equal to just 87% of the full-time average, had part-timers had the same characteristics as full-timers they would actually have earned on average 10% more than those in full-time work.

By 1994-95 the part-time/full-time earnings ratio had fallen to 69%, with both changes in differences in characteristics and changes in returns to characteristics contributing towards this fall. Differences in employment characteristics accounted for around three-quarters of the earnings differential while the remainder was attributable to differences in returns to characteristics. In 1994-95, had full-time and part-time workers had the same characteristics, the earnings ratio would have been as high as 92%.

Between 1980 and 1994-95 the part-time/full-time pay ratio fell from 87% to 69%. Four fifths of this drop can be accounted for by changes in the relative characteristics of these two groups of workers. Thus differences in characteristics not only accounted for the best part of the earnings gap in both periods but the majority of the fall in the earnings ratio resulted from the worsening of the relative employment characteristics of part-timers. However, over this period it does appear that a penalty for working part-time did emerge and this made a significant contribution to the decline in the relative earnings position of part-time working women.

It seems clear that in spite of the significant gap between the hourly earnings of full-time and part-time women workers, part-time work itself imposes no financial penalty. Far more important is the tendency for part-time jobs to be concentrated in low-skilled occupations, and for part-time women workers in turn to be less well-qualified than their full-time women counterparts. Many part-time women workers would prefer longer hours; correspondingly, many full-timers seem to be working longer hours than ideally they would like. This latter factor could exaggerate the gap between full- and part-time pay rates. Changes in work patterns, for example, making it easier for women to return to work on a part-time basis after maternity leave, wouldn't eliminate poorly paid part-time jobs. But it would help improve the overall quality of part-time jobs on offer.

Table 3 Explaining the female part-time/full-time earnings gap
Ratio for female employees (%)

	1980	1994/95
Raw earnings ratio	87.2	69.1
Earnings ratio resulting from differences in returns to characteristics	109.8	91.6
Earnings ratio resulting from differences in characteristics	79.4	75.4

Susan Harkness is a Research Officer at the CEP.

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Globalisation...
Because it's there!

In this issue's Weightless Economy column, Kathleen Tyson Quah considers what's behind the drive for globalisation in the financial markets.

Globalisation. Sick of it? Too bad, there's more coming every day in the financial markets. I've worked for a global securities clearing house; I've built a global securities collateralisation system; I'm developing a global foreign exchange real-time gross settlement system; and my next project is a global clearing house for exchange-traded derivatives. I have lawyer friends writing global standard netting agreements, accountant friends implementing global accounting standards, IT friends developing global risk management software, investment banker friends drafting global corporate disclosure standards, trader friends honing global investment strategies, regulator friends refining global regulatory requirements, custody friends providing global back-office outsourcing, and commercial banker friends assessing global credit risk on their borrowers. Quoting Walt Disney, an early globaliser of mass entertainment, *'It's a small world after all'*, and it's getting smaller with each rotation of this blue-green ball of space-dust on its axis.

The aim of all this globalisation is lower costs, more transparency, greater efficiency and less risk. These aims are laudable, in the best interests of the financial markets and their users. The practical result will be lower headcounts, thinner margins, fewer markets and a shake-out of less sophisticated players. These effects are contrary to the self-interest of many market participants (if not a majority). The tension creates a fascinating, ever-shifting tableau as individuals, firms and markets struggle to define their strategic direction, negotiate political allegiances and secure relative advantage in the changing global climate.

Globalisation of financial markets is driven by technology. Those promoting new schemes for globalisation subscribe to the because it's there! rationale for doing something immensely challenging, risky and difficult.

In common with many current developments, globalisation of financial markets is driven by technology. Those promoting new schemes for globalisation subscribe to the *because it's there!* rationale for doing something immensely challenging, risky and difficult. Like climbing Everest, an effort to rationalise global practices and infrastructure will be widely regarded as worthwhile despite the lack of any practical benefit (although there generally is some). The lure of simpler and fewer operating systems, better access to information, and improved risk management provide those driving the financial markets with the same heady intoxication as a lack of oxygen on the higher slopes of the Himalayas. Anyone who worries excessively about obstacles and risks isn't going to accomplish anything notable.

When climbing a mountain, man confronts the weakness of his body, his will and the impediments of terrain and weather. When globalising market practices and infrastructure, man confronts the myriad interdependencies of established anti-competitive practices, irrational market constraints, outdated legal systems, bureaucratic hierarchies and regulatory intransigence. The sufficiency of individual effort and character is important but not decisive. Knowing the terrain and predicting the weather still count. Those building new global systems or processes must take others up the slope with them or fail. Understanding the reasons why things are done as they are done, and making the acclimatisation to the new global standard or system less disruptive, is proving as critical to success as any technological achievement. Evolution and flexibility, not revolution and dirigisme, have proven the successful formula for global systems.

The rush to globalise everything about the markets is staggering. Those now ascending the slopes of globalisation struggle past the corpses of failed endeavours. There have been several notable casualties, but the latest is the CME-Depository Trust Company, a would-be global swaps collateral depository, which fell victim to the inconsistency of international commercial law and regulation. Still on the ascent are multilateral netting and collateralisation schemes, which struggle to gain the critical mass which will propel them to greater efficiency. Straight-through processing presses forward despite the difficulties of integrating various legacy systems into a modern whole. A raft of global initiatives, both within and among market participants is flowing up from the foothills. The pace seems to be intensifying rapidly.

When I first broached the idea of a global clearing house for exchange traded derivatives in May 1997, I was told that it was impossible given the political imperative of preserving local clearing franchises (and if it were a good idea someone else would have thought of it). Soon after I was told it was attractive for emerging markets where resistance to change was less entrenched and the need to attract foreign capital would override parochial interests. When Eurex (a merger of Swiss and German exchanges) was announced, it was suggested that Eurex or the London Clearing House should form the central hub, to provide critical mass and leverage existing infrastructure to expand worldwide. Recently I was told that it is only a matter of time until my global clearing house is reality – in whatever form – because the rationalisation of margin flows and globalisation of risk management are so compelling. Some people have expressed several differing views as their own perception has changed over the past six months.

Friends who told me I was hopelessly naïve or remarkably brave (read stupid) are now warning me that if I delay the initiative beyond the first quarter of next year someone else will have built my clearing house instead.

But what if someone less particular pushes ahead with my idea before then? If they succeed, then I have lost what little proprietary interest I can claim in a good idea. If they fail they may poison the well, regardless of how thoroughly I've prepared my own proposal. I can only pursue the global clearing house as my own judgement dictates and hope for the best.

Perhaps there should be some sensible restriction on the global projects allowed to proceed at any given time – a sort of global project queuing system. Nepal introduced limits on the number of climbers allowed to attempt Everest after years of unrestrained access. The sheer quantity of frozen bodies, oxygen tanks and climbing litter cluttering the slopes got to unmanageable and unseemly proportions as more and more intrepid venturers heeded the call of the mountain. Limiting global projects in the financial markets would create a clearer path for those with the experience and preparation which make success more likely, and would

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reduce the wasted effort and expense imposed on those who back failed initiatives.

In a similar vein, prominent Americans have urged Europe to postpone monetary union, arguing that the available technical staff and commercial resources are insufficient to cope with the year 2000 problem alone, much less in parallel with transition to the Euro. The fear is that failure to prepare adequately for either, or both together, could plunge Europe into a deep recession. Grumblings about global financial projects maturing to implementation over the same timescale are beginning to be heard in the corridors and clubs of the City. There just aren't enough staff with the necessary drive and expertise to successfully implement every one of the many global systems changes being promoted. There ought to be some mechanism for rationalising all the attempts at global rationalisation.

The difficult issue, common to any proposed constraint on unfettered capitalism, is who should run the global project queuing system and how? Right now the advantage lies with those institutions able to accurately survey the complex terrain and fairly predict the future elements in order to successfully prepare themselves for the coming global operating environment. Why protect those less diligent, less efficient or plain unlucky from the effects of their folly or misfortune?

The pace of cross-border mergers in banking and financial firms is testament to the harried preparations for global markets. Many of the alliances will prove wiser and stronger than the component parts. Many may fail to live up to expectations. Whatever the result for individual mergers, overall the markets are increasingly dominated by global firms with a global outlook on performance, competition and service. As long as some of these firms are going to get things roughly right as the world changes, is there any need to impose artificial constraints on globalisation?

All major financial institutions and markets are assessing the cooperate vs. compete and protect vs. expand dilemmas in light of their relative position and strengths on the global stage and their ability to protect their home turf from encroachment. No panel of great and good could be truly independent in deciding how much globalisation makes sense, when and for whom, so no queuing system is going to save either firms or markets from having to make hard choices in uncertain times.

Like it or not, globalisation is going to change every aspect of the financial markets for every player in them. As communications and technology capabilities improve and costs fall, more and more globalised processing becomes possible. As more and more becomes possible, more and more aspects of markets can be rationalised through global practices and systems. Firms and markets have to respond to globalisation because more and more is going to happen. Impediments to globalisation would be unjustified and impossible to administer. Globalisation... Because it's there!

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The Centre for Economic Performance

Established in 1990, the Centre is a unique institution – a policy orientated research group with a large in-house staff. Based at the London School of Economics – Europe's leading social science university – the Centre's researchers work on the most pressing issues facing Britain and Europe today: including unemployment, skills, inequality, productivity, corporate governance, European Monetary Union and the economic transformation of Eastern Europe. Most of the Centre's funding comes from the Economic and Social Research Council, though we also receive funding from other bodies, including the European Commission, as well as from the corporate sector.

The Centre has strong links with policymakers of all political parties in Britain, as well as in the post-communist world, the World Bank, the IMF and the European Commission. We also have strong and growing links with national and multi-national companies through our Senior Business Forum. Several members and associates of the Centre currently have part-time advisory positions with the British government.

The Centre boasts an outstanding team of economists and other social scientists. Most are based full-time at the Centre or at the LSE: but senior staff also hold positions at a range of other distinguished universities – Oxford, Cambridge, Bristol, Sheffield, York, Harvard, Dartmouth College and Stanford.

Senior Business Forum

The purpose of the Forum is to promote effective interchange between a number of leading businessmen, academics and journalists about key issues determining business success. The businessmen are drawn from the leading 100 companies, the journalists from The Economist, and the economists from LSE's Centre for Economic Performance. Firms who join will benefit from being part of the Forum itself, and the CEP Round Table, in addition to building wider links with the Centre. From 1998 there will be an annual dinner when Forum members will receive reports on the work of the CEP.

Chairmen and chief executives meet 3 times a year to hear an outstanding and distinguished speaker and hold a private discussion, followed by buffet dinner – normally at The Economist building in St. James. Recent speakers and topics include:
Rudi Dornbusch and Paul Krugman on which countries will prosper;
John Kay on stakeholding companies;
Gordon Brown on Labour's business policies;
Willem Buiter, Gavyn Davies and Alan Walters on EMU.

The Round Table

The CEP Round Table consists of one designated senior executive from each company and meets 3 times a year at LSE to hear a report from a leading academic (usually from the CEP) on some key issues for business, followed by a discussion and buffet dinner. Recent speakers and topics include:
Richard Layard on skills and training;
Nick Crafts on productivity growth and innovation;
Paul Gregg on workless households;
Stephen Nickell on product market competition and productivity growth;
David Metcalf on the minimum wage.

Activities

The Centre organises a range of activities – seminars, special lectures and conferences: many of which are open to members of the Senior Business Forum and the public.

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