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THE QUEEN'S **ANNIVERSARY PRIZES** FOR HIGHER AND FURTHER EDUCATION 2002

full employment

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CENTRE for ECONOMIC P E R F O R M A N C E

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Centre Piece

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Cause for celebration

Richard Layard looks back on the achievements marked by the Queen's Anniversary Prize award.



THE QUEEN'S ANNIVERSARY PRIZES FOR HIGHER AND FURTHER EDUCATION

2002

his issue of *CentrePiece* celebrates the presentation to the CEP this month of a Queen's Anniversary Prize for its research over the years since it was set up in 1990.

The citation recognises us as "a centre of national and international excellence in the application of economic theory and rigorous empirical analysis to issues of unemployment, productivity, education and international trade". It is a particular source of satisfaction to us that we have been recognised as having "had a significant impact on government policy in the UK and more widely". For that has been our purpose from the start.

We set out to identify major issues in the real world and to organise a critical mass of senior and junior scholars to attack them. We have always regarded a tough attitude to theory as the vital framework for empirical work. But we also think that



research is not much help if it does not yield equations with parameters that can be estimated.

Research at the Centre has benefited from three central features in our approach. First, unlike other institutions, where supply-side microeconomics and demand-side macroeconomics are treated separately, the CEP brought them together from the start. Second, those working at the Centre enjoy a quality of IT support, with specialist staff to organise the databases for all the key British and European surveys and data series, that is not bettered anywhere. We now also enjoy the excellent working conditions of the new LSE Research Lab, designed by Norman Foster. Third, as a research centre, the CEP has actively trained PhD students by an apprenticeship system, with younger scholars working with senior staff and often publishing their first papers as joint authors. An average of six PhDs have been awarded annually, with two thirds of the current 30 PhD students coming from continental Europe. We also run a successful two-year MSc programme for future economic decision makers.

By any standards, the quality and volume of the research generated since 1990 has been impressive. As the citation recognises, we have had a significant impact on a wide range of policy. Employment, unemployment and poverty have been (and remain) an important focus of our activity.

In Britain, governments (both Conservative and Labour) have accepted our evidence that long-term unemployment is a feeble weapon against inflation, compared with shortrun unemployment. In all major industrial countries now, the main policy aim is to reduce long-term unemployment rather than to spend money trying to stem the flow into short-term unemployment. Since 1997 all EU countries have agreed to ensure that everyone becoming unemployed is offered economic activity within a year.

We demonstrated the benefits of replacing long-term social security payments by active and effective help in finding worthwhile jobs. The result was the introduction of New Deal type policies in Britain, Denmark and The Netherlands and the merging of benefit offices and job centres in the UK into the new Jobcentre Plus organisation.

Our research drew attention for the first time to the high proportion of the UK population living in totally workless households and to the disincentive effects of low take-home pay for those entering the job market at the bottom of the wage ladder. This combination was highlighted as a major cause of poverty, especially child poverty. Policy makers responded by introducing the Working Family Tax Credit scheme, work-focused interviews at Jobcentres and the National Minimum Wage. Research at the Centre had correctly predicted that a minimum wage set at £3.60 an hour in 1998 would, contrary to widespread opinion, have little or no negative effect on employment.

As productivity and incomes became an important policy focus in the 1990s, we established a major programme on the economics of education, a key subject neglected in Britain for a quarter of a century. The group running this successful programme since 1995 was then selected by what is now the Department for Education and Skills to lead a new tripartite research centre - the Centre for the Economics of Education - which brings together the CEP with the Institute of Fiscal Studies and the Institute of Education. The work in this area, in particular on apprenticeship and on adult literacy and numeracy, has led directly to important government initiatives.

In the same way, the Centre has reacted effectively to other real issues as they have emerged. In 1995 we created a new programme, with a staff of about 20, to study the issues related to globalisation and economic geography. This is now the leading international trade group at any European university. We also became closely involved throughout the 1990s in the post-Communist transition processes in Russia, Poland and elsewhere. More recently we have channelled our research effort into new directions, such as the impact of the Internet, the effect of international capital flows on economic stability and the relationship between income levels and economic well-being.

Looking back on what has been achieved since 1990, our direct and personal influence on policy matters has also been out of all proportion to our size. Of past and present members of the Centre, Charles Bean is now the Bank of England's Chief Economist; Stephen Nickell, Sushil Wadhwani and Willem Buiter are, or have been, members of the Bank's Monetary Policy Committee; David Metcalf has been a key member of the Low Pay Commission since it was established; Paul Gregg has been a member of the Chancellor of the Exchequer's Council of Economic Advisors focusing on poverty; and Stanislav Gomulka was the lead author of the Polish Solidarity government's economic reform plan, which became a model for post-Communist change in the other countries of east and central Europe.

From the start we disseminated our work as widely as possible. We run five field seminars a week, in order to subject research to criticism at an early stage. We organise an average of eight conferences a year and publish about 50 Discussion Papers, all of which can be seen on our web site. Since 1990 the CEP's staff has published 101 books, 540 chapters in books and 780 articles in refereed journals.

We are grateful to the ESRC and our other donors without whose help none of this would have been possible. We believe that we have made and are continuing to make a contribution to applied economic research that is without rival in Europe. It is, therefore, most satisfying to us all that our efforts have been recognised in the award of this Queen's Anniversary Prize.

Richard Layard has been Director of the CEP since it was established.



Unto them that hat hat hat...

Since the introduction of GCSE, more children from poorer backgrounds are staying in school post-16. But, argues **Stephen Machin**, it is middle-class children who have won most from the huge expansion of higher education.

ducation is widely championed as a means of lessening economic and social inequalities. It should enable children of high ability to improve their lot, irrespective of family background.

So what should we think if the evidence is that the recent expansion of post-16 schooling has disproportionately benefited children from richer backgrounds? If, in particular, the expansion of the higher education system has also benefited children from higher income families, does this not have serious ramifications for future inequality? Graduates earn more in later life and so higher education would be reinforcing links in economic status across generations, thereby reducing intergenerational mobility. Where does that leave the Labour government's target of 50% of under-30s entering higher education by 2010?

Figure 1 shows the rapid expansion of education participa-

tion since 1960. It confirms that higher education participation was low at the start of the 1960s, at around 6% of the 18 to 19 year old age cohort. It rose to about 14% by the mid-1970s, before dropping back a little in the late 1970s. The first part of the 1980s saw small increases in most years, but the expansion from the late 1980s was then very rapid. By 2000 it had reached 33%.

This rapid increase coincided with the reform of the age 16 examinations system in 1988, when the General Certificate of Secondary Education (GCSE) was introduced. The GCSE represented something of a departure from the previous O level/CSE system. It relies on (an often substantial) coursework assessment and a higher proportion of the 16+ age group takes it than was the case with the previous 16+ exams. Moreover, the new exam deliberately moved away from being a means of separating children into high and low education streams. Norm-referenced exams, in

which relative performances is what matters, made way for criterion-referenced assessment in which everyone (at least in theory) can achieving the top grade.

The effect of the new examination system in stimulating a rise in staying on rates from the late 1980s is confirmed by Figure 1: 36% of 17/18 year olds in 1979 to 44% by 1988. Then the 1990s saw a step change. By 2001 the staying on rate was up to 73%.

Income inequality for families with children has also risen rapidly since the late 1970s. Figure 2 shows the evolution over time of the 10th, 50th and 90th percentiles of the log real income distribution, where each percentile is indexed to 1 in 1968. After not much change in the 1970s, we see the now familiar pattern of no real income growth at the 10th percentile for most of the post-1979 period. Only from the mid-1990s does the 10th percentile's income start to grow in real terms. On the other hand, there is significant growth (of over 40%) at the median and substantial growth (of over 75%) at the 90th percentile.

Part of this rise in income inequality has reflected itself in a sharp increase in child poverty. For example, calculations

based on the FES show that around one in twelve children lived in families with income below half of the national average in 1968. By the late 1990s this measure of child poverty had rocketed to around one in three.

These patterns make any education/income links all the more important. First, as income gaps have widened, any positive link between education and income will disproportionately benefit children from richer families and disadvantage children from poorer families. Second, any strengthening of the connections between education and family income will exacerbate any such rich/poor differences.

Jo Blanden, Paul Gregg and I have investigated how the links between education and family income have altered through time in the UK (Blanden, Gregg and Machin, 2002). Because of real difficulties with almost all UK data sources in matching children who have left home with the income of their parents, our research follows two main routes. The first is to focus on children's decision as to staying in education after the compulsory school leaving age, because most children at this point are still living in the family home and can, therefore, be linked to their parents' income. The second is to use the rich cohort and longitu-



Figure 2. Changes in the distribution of (log) real income for UK families with children



Staying on rates from Family Expenditure Survey cohort of 17/18 year olds still in full-time education. Source: own calculations, in Blanden, Gregg and Machin (2002). Age participation index is the number of young (under 21) home initial entrants expressed as a proportion of the averaged 18 to 19 year old population. **Source:** DfES.

Notes: Own calculations from Family Expenditure Surveys of 1968 through 2000, in Blanden, Gregg and Machin (2002). Sample is all non-pensioner families with children.

Table 1. Staying on rates by income guintiles (%)

Parental income quintiles

	lowest	2nd lowest	middle	2nd highest	highest
1979-1981	29	31	35	42	54
1982-1984	34	37	36	48	57
1985-1987	33	38	40	48	62
1988-1990	31	40	45	49	69
1991-1993	44	56	52	57	73
1994-1996	61	65	61	72	84
1997-1999	61	70	70	76	85
Change 1979-1981 to 1988-1990	2	9	10	7	15
Change 1988-1990 to 1997-1999	30	30	25	27	16

Source: own calculations from Family Expenditure Survey data Family Expenditure Survey cohort of 17/18 year olds studied in Blanden, Gregg and Machin (2002).

dinal data that follows individuals over time, thereby allowing one to match individuals with their parents' income.

Table 1 shows the percentage of 17 to 18 year olds who stayed on after the minimum school leaving age between 1979 and 2000. It breaks down staying on rates across the parental income distribution, showing the percentage for each quintile in each time period.

The Table makes it clear that the staying on rate is considerably higher for children from the upper part of the income distribution. For example, between 1979 and 1981 54% of children with parents in the upper fifth of the income distribution stayed on at school, compared with 29% from the bottom fifth. Even by the last period, 1997 to 1999, a strong income related gap remained, with 85% of the highest guintile children staying on, compared with 61% of the lowest quintile children.

But these broad comparisons conceal an interesting pattern across time, which splits itself into two clear periods. Before the introduction of GCSE the income gaps in staying on rates actually widened, with a 15 percentage point increase in staying on rates between 1979-81 and 1988-90 for the highest income quintile and a meagre 4 percentage point rise for the lower quintile. After the GCSE reform the staying on rate increases much faster at the bottom.

One might think that a reform that turned around the income gaps in staying on rates also had the potential to affect higher education participation rates as well. Here, however, the picture is bleaker. Table 2 shows higher education participation by income quintiles at three points in time: the late 1970s, the late 1980s and the late 1990s.

The table shows that children of higher income parents



GCSE

departure

	Parental income quintiles									
	lowest	2nd lowest	middle	2nd highest	highest					
1977 – NCDS	9	10	12	14	27					
1989 - BCS	10	14	16	24	38					
1997 - BHPS (Ave)	15	26	24	34	46					
Change 1977 to 1989	1	4	4	10	11					
Change 1989 to 1997	5	12	8	10	8					

 Table 2.
 Higher education participation by income quintiles (%)

Source: own calculations from National Child Development Study (NCDS), British Cohort Study (BCS) and British Household Panel Survey (BHPS) data on people aged 19, studied in Blanden, Gregg and Machin (2002).

improved their HE participation substantially in the 1980s. There was then little change across the income spectrum through the 1990s. In fact, the three middle quintiles seem to improve their position by more than the top quintile during the 1990s and the top quintile itself did better than the bottom. There was certainly no reversal of trends comparable with that seen over time in school staying on rates.

So it is clear that educational inequality – the link between family income and post-16 education – has tended to rise in recent years. These patterns are confirmed in the more detailed statistical analysis in Blanden, Gregg and Machin (2002), which controls for factors that are correlated with both parental income and education participation. A feature of that statistical work is the conclusion that the stage of the education process is important. While the introduction of the GCSE system ameliorated rising income gaps related to school staying on rates, no such process has permeated into higher education. In fact, university participation has become more strongly connected to parental income. Even the sharp expansion of university participation of the 1990s did not benefit poorer children. If anything, it strengthened the position of the middle classes.

The same story is borne out if one considers recent trends in higher education participation by social class. Table 3

Table 5. Figher education participation and social class in the 1990s (7)	ne 1990s (%	in the	class ir	social	and	participation	education	Higher	Table 3.
---	-------------	--------	----------	--------	-----	---------------	-----------	--------	----------

	1991-92	1998-99	Change 1991-92		
			to 1998-99		
Professional	55	72	17		
Intermediate	36	45	9		
Skilled non-manual	22	29	7		
Skilled manual	11	18	7		
Partly skilled	12	17	5		
Unskilled 6	13	7			
All social classes	23	31	8		

Source: Glennerster (2001), Table 11.

Educational inequality has tended to rise in recent years



reproduces some of Glennerster's (2001) analysis of Social Trends data to show no differential improvement for the lower social classes in the link between higher education participation and social class. There has been an actual worsening in absolute percentage points, despite the rapid increase in enrollment seen in the 1990s.

These patterns have clear ramifications for future inequality, both within and across generations. We know that graduates subsequently get paid more. If more children from relatively rich backgrounds get degrees, this will generate increased links between people's income and that of their parents, thereby reducing intergenerational mobility (see Blanden et al, 2001). This does not seem to be a desirable outcome. Similarly, within generations, there are likely to be productivity implications of university education being linked more closely to parental income. It seems inevitable that this will result in higher ability children from poor backgrounds missing out (and lower ability children from rich backgrounds "getting lucky").

There are also implications for the currently "hot" issue of higher education financing. Unless accompanied by substantial and generous scholarships for lower income children, the proposals to introduce top-up fees seem bound to reinforce educational inequalities. It seems clear, in fact, that measures to reduce the problems that financial poverty generates for access to higher education are needed. As Nicholas Barr convincingly argues: "Scholarships - such as higher education maintenance allowances - are vital. So are financial incentives for universities to widen participation." (Barr (2002)) If one is concerned about educational inequality and its wider impact on society and the future performance of the economy, then it seems that these kinds of reforms of HE financing are important - more important probably than the government policy target of 50% participation by 2010.

Stephen Machin is a member of the CEP, Director of the DfES Centre for the Economics of Education and Professor of Economics at University College London.

This article draws heavily on research done jointly with Jo Blanden and Paul Gregg.

We know that graduates subsequently get paid more

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by Richard Layard and Stephen Nickell

Full employment is not just a dream

Europe's leaders have pledged themselves to ambitious targets for employment by 2010. **Richard Layard** and **Stephen Nickell** here present them with a manifesto for how it can be achieved.



n Europe unemployment is too high and employment is too low. Over 7¹/₂% of Europe's workforce is unemployed and only two thirds of people aged 15 to 64 are in work.

At their Lisbon summit in 2000 the EU heads of government set the target that by 2010 the employment rate should rise from 64% to at least 70%. For older workers, aged between 55 and 64, the employment rate should rise from 38% to at least 50%.

These are ambitious targets. They will require two big changes: more people must seek work and, among those seeking work, a higher proportion must get a job. So we need higher participation and (for full employment) we need a much lower unemployment rate.

Can it be done? A mere glance at the experience of different European countries shows that it can. As Table 1 shows, four EU countries already exceed the overall target for 2010 (Britain, Denmark, The Netherlands and Sweden). And eight of the 15 countries in the EU already have lower unemployment than the United States (the previous four, plus Austria, Ireland, Luxembourg and Portugal).

So there is no such thing as "the European unemployment problem". The fundamental problem is high unemployment in four of the five large countries: France, Germany, Italy and Spain. If high overall unemployment in Europe is to be reduced, these large countries will have to learn what they can from the experience of the rest of Europe. At the same time, no European country can be satisfied with its current performance. In every country unemployment is higher than in the 1960s and the participation rate (especially among older workers) is unsustainably low.

Many people doubt whether more jobs will result if more people look for work. Indeed, some believe that the only way to reduce unemployment is to reduce the number of people looking for work – for example through early retirement. This "lump of labour" fallacy is a profound error and, unless people understand the process of job creation, there is no chance of our hitting Europe's employment target.

At any particular moment, the number of jobs is determined by the amount people want to buy – that is by aggregate demand. Aggregate demand is influenced by many factors, mostly outside the direct control of policy makers. However, monetary policy, in particular, is very important. In a recession, aggregate demand is low and this is reflected in higher levels of unemployment. Monetary policy is then generally loosened in order to stimulate aggregate demand. As the economy recovers, at some stage it runs into labour shortages and inflationary pressure. In anticipation of rising inflation, monetary policy is then generally tightened. There is an unemployment problem if, at this point, unemployment is still high.

The key issue is how much unemployment remains when

ро	pulation ratios (%)	
	Unemployment rate*	Employment/ Population** aged 15-64 aged 55

Unemployment rates and employment/

		aged 15-64	aged 55-64
Austria	4.0	68	27
Belgium	6.8	60	25
Denmark	4.2	76	57
Finland	9.1	68	46
France	9.2	62	37
Germany	8.1	66	37
Greece	7.3	56	38
Ireland	4.4	65	47
Italy	9.0	55	19
Luxembourg	2.4	63	25
Netherlands	2.6	74	39
Portugal	4.4	69	50
Spain	11.3	59	39
Sweden	5.3	75	67
UK	5.2	71	52
EU	7.5	64	39
EU Target (2010)		70	50
USA	6.0	73	58
Japan	5.2	69	62

* April 2002

Table 1

** 2001

Source: HM Treasury Pocket Databank, 31 July 2002; OECD Employment Outlook, July 2002 (pages 304-9).

labour shortages become excessive and inflation therefore starts rising. This is known as the non-accelerating-inflation rate of unemployment (NAIRU). It is, if you like, the sustainable rate of unemployment and, if there is no trend in inflation up or down, it will also be the average rate of unemployment over a run of years.

This rate of unemployment differs greatly between countries and over time. It depends on the institutions and policies existing at the time. It is these factors that determine the average unemployment rate. In other words, they determine

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There is no such thing as 'the European employment problem'



Source: OECD Labour Force Statistics, 1958-1978 (pages 18, 24) and 1979-1999 (pages 11- 13); European Economy, 73, 2001 (pages 274-5)

Source: OECD Employment Outlook, July 2002 (pages 208-9)

how many jobs there will be for a given total labour force. At all times the number of jobs will depend on aggregate demand. But, because of the inflation constraint, aggregate demand will be restricted by the amount of available labour. So, over a run of years, the number of jobs will ultimately depend on the available supply of those who are ready and willing to take up jobs. This proposition is crucial and many of the mistakes in employment policy come from a failure to understand it.

If you think of the changes in employment and labour supply over the centuries, it is quite obvious how wrong it is. There is further strong evidence from the recent past. As Figure 1 shows, the supply of labour has grown at hugely different rates in different countries. But the number of jobs in each country has grown more or less in line with the growth in labour supply.

Countries also differ in their levels of labour force participation. If the "lump of labour" theory were true, one might expect those with lower labour force participation rates to have lower unemployment. But, as Figure 2 shows, this is not so. If anything, it is the other way round. One might also expect that the countries that had lowered their participation rate most would have also lowered their unemployment most. Again, as Figure 3 shows, this is not so.

Figure 3. % points change in labour force participation rate (aged 15-64) and in unemployment rate (1990s compared with 1980s)



Source: OECD Employment Outlook, various issues

So the starting point is that, if we increase the supply of labour, we shall increase employment. This has two implications. First, we can increase employment by increasing labour force participation (for example, that of single mothers or older people). Second, we can increase employment by increasing the effective supply of labour from people who are already searching for work unsuccessfully.

The key evidence concerns the relation between unemployment and vacancies. When vacancies are high, unemployment should be relatively low – because it is easy for unemployed people to find work. Yet, strikingly, in France, West Germany, Belgium and Spain vacancies in recent years have been extremely high by historical standards, despite high unemployment. (No vacancy data are available for Italy.) It is this high level of vacancies that helped to generate increasing European inflation in 2000/1, which led to higher interest rates and the end of the European recovery.

In all these four countries vacancies in 2000/1 were far higher than in 1975. One would, therefore, expect that unemployment would have been lower than in 1975. But in fact it was more than double (except in Belgium). The main upward shift of unemployment relative to vacancies occurred in the 1980s. During that period a similar shift occurred in almost every European country. But in Britain, Denmark, and The Netherlands something different then occurred in the 1990s. Unemployment fell back close to its level in 1975. This reflected a structural shift, since vacancies did not rise compared with 1990 – if anything the reverse. So in these three countries the unemployed became much more effective at filling vacancies, while in France, Germany, Belgium and Spain they did not. Why was this?

There is no evidence of any major change in the mismatch between the characteristics of the unemployed and the characteristics of the jobs available in any of the countries we are discussing. So the change must have been a change in the matching process – in how unemployed people are treated.

Even in the 1980s it was evident that unemployment differences between countries were influenced by how unemployed people were treated. It was striking that the United States had virtually no long-term unemployment (defined as a duration of over a year), while Europe had almost as many long-term unemployed as short-term employed. The most obvious explanation was the longduration unemployment benefits that existed in Europe but not the US. This relationship is depicted crudely in Figure 4.

The duration and level of benefits are one set of factors influencing unemployment. But even more important is the help that unemployed people get in finding work and the conditions that apply to the receipt of benefit. These two

The `lump of labour fallacy' is a profound error

Figure 4. Long-term unemployment and the duration of benefits



Source: Benefit duration is from Nickell and Layard in Ashenfelter and Card (eds), Handbook of Labor Economics Vol. 3 and relates to 1992. LTU data are from OECD Employment Trends and relate to 1989-98.

factors, active labour market policy and benefit conditionality, work best in conjunction with each other.

Clearly, one way to reduce long-term dependence on benefits is to make sure that they are used for their intended purpose – to support people who are not working and who really cannot find work. In other words, the right to benefits must be matched by an obligation to get a job, if jobs exist. There must be a "test of willingness to work".



The key concerns the relation between unemployment and vacancies

As a recent OECD conference revealed*, countries differ amazingly in the framework within which benefits are dispensed. Experience shows that unemployed people are more available to fill employers' vacancies, if

- benefits are paid through the same office as that where people are placed in work;
- (ii) unemployed people have to attend regularly in person; and
- (iii) unemployed people are expected after a period to be available for most types of work, even if this involves substantial journey times or even (as in a few countries) moving home with the help of a subsidy.

The problem with imposing strict availability conditions is that these are difficult to apply unless the employment service is extremely active in helping people to get offers of work. So a "stricter benefit regime" to reduce "passive" dependence on benefits only makes sense if linked to an "active" labour market policy to help people back into work. The two should be complementary.

This is the policy known as "welfare-to-work". The phrase comes from America, where it mainly applies to lone mothers. But the practice as applied to unemployed people has been mainly developed in Europe. Denmark, The Netherlands and Britain all introduced major welfare-to-work policies in the 1990s. And in the last year or two France, Germany and Spain have taken more limited steps towards greater conditionality.

In labour market policy there has to be an especial focus on preventing long-term unemployment, since it is so destructive. This means ensuring that everyone gets offers of work or training within a year or so of becoming unemployed, as required by the EU Luxembourg Guidelines. Britain, Denmark and The Netherlands do this for young people, but only Denmark and The Netherlands do it for people of all ages. The aim must if possible be to channel offers of work from regular employers, mainly in the private sector. But, to prevent long-term dependence on benefits, we need to ensure some worthwhile activity for everyone. It must be actively aimed at employability, so that, when we cannot secure a regular job, we should offer meaningful work with NGOs or socially useful projects. The measure of success is the numbers who get regular work and keep it.

Welfare-to-work must involve the principle of mutual obligation. The state has an obligation to ensure that offers of work are channelled to every unemployed person within a reasonable time after becoming unemployed. But in return the citizen should take advantage of those offers, or lose some or all of their benefit if they do not do so, unless there are medical reasons to the contrary. The Luxembourg Guidelines should be extended to include this.

As always, there is the issue of whether such policies can

*See Labour Market Policies and the Public Employment Service, OECD 2001.]

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really expand employment. Many doubt whether active labour market measures can work owing to "displacement" and "substitution". In extreme form, these fears derive from the "lump-of-labour" fallacy: if the number of jobs is fixed and we enable Mr X to get one of them, then some other person must by definition go without work.

Evidence on substitution and replacement is by its nature difficult to obtain. In the past it has been mainly got by asking questions to employers. When a subsidy is evaluated, employers are often asked: 1. How many of those hired would you have hired anyway? ("Deadweight"); 2. How many of the jobs would have been filled by other recruits in any case? ("Substitution"); 3. How many of the new subsidised jobs represent an increase in your own employment at the expense of your competitors? ("Displacement"). The measure of net job creation resulting from the subsidy is then said to be the total number of subsidised jobs minus 1, 2 and 3.

Until recently this procedure has been used almost universally and often implies that net job creation is only 20% of the total number of jobs subsidised. Yet these estimates of substitution and deadweight are based on a theory of the labour market that is never used for any other purpose.

The theory being used is that, if somebody would have been employed in one place and that opportunity closes down, then unemployment increases permanently – by that amount. This makes no allowance for the possibility that people who find one channel of employment blocked will find another channel. The procedure is especially extraordinary when one considers that typically half the people

Countries differ amazingly in their benefits framework

supposedly sent into unemployment by the process of substitution are people who already have a job and would have simply been changing jobs.

Only recently have economists began to realise that the old assumptions about substitution are invalid. Lawrence Katz of Harvard University, for example, has insisted on a more rational analysis of the main US wage subsidy programme for youth, the Targeted Jobs Tax Credit. Until 1988 it covered disadvantaged young people aged between 18 and 24, but from then onwards it ceased to apply to people aged 23 and 24. This change provided a good controlled experiment, enabling one to isolate the effects of the subsidy previously on the employment of 23 and 24 year olds. His conclusion was 40-52% of the subsidised jobs had represented net additions to employment.

Interestingly, evaluations of more intensive job search assistance have never suffered from the problems discussed above. They have generally shown good value for money. These can have the added advantage that extra effort is easily focussed on those who really need it. This is an important element in any active labour market policy and helps to reduce "deadweight".

One further point on unemployed people. Throughout Europe, ethnic minorities are a growing proportion of the labour force and their unemployment rates are usually much higher than the average. Ethnic minorities need especial help and the same principle applies to them as to all citizens: the principle of rights and responsibilities. They, more than most, need the right to offers of work or training but they also have the responsibility to master the language of their adopted country and to use the offers that are available to them.

Moving on to older workers and mothers, there are two issues that these two groups share in common. First, there is the issue of distortions. Those not working may for that reason be receiving state benefits, in which case there is a cost to the rest of society and, therefore, a possibility that incentives are inefficiently distorted away from work. Second, there is the issue, arising from higher longevity and lower birth rates, that we need to increase the numbers in work in order to pay for the growing numbers of dependent elderly. That said, the reasons for non-participation are very different for older people and for single mothers – and so are the policies needed to increase participation.

Among older people (aged 55 to 64) only 42% are in the labour force and only 38% are working – making an unemployment rate of 8%, the same as the overall rate. This highly unsatisfactory situation is very similar to what it was ten years ago. To find out what is causing it, we can learn a lot from the huge differences in participation rates and employment rates across countries (see Table 1) and their time series variation. There are a number of key explanatory factors.

The first is the standard age of retirement at which state benefits become payable. The second is the use of unemployment benefits as a form of early retirement benefit, with none of the usual job search conditions attached. And the third is the availability of invalidity benefits, often not properly monitored to see whether the person still suffers from the problem they had when they first went on to benefit. (Some 15% of all men aged between 55 and 64 are on invalidity benefit in Britain, Germany and Italy and 25% in The Netherlands.) To achieve higher participation of older workers will require changes in all of these practices, but especially in the standard age of requirement.

But there must also be wider changes in society's attitudes and approaches to older people. By 2006 at the latest every European country must have introduced laws against age discrimination in employment. But this will only succeed if at the same time older workers become genuinely more attractive to employers through progressive updating of skills, either by workplace learning or independent study. Continuous learning and adequate job mobility in middle age are important to prevent workers become burned out or bored before their natural working life is over.

Among people of working age, mothers are the other main group who are often not working. The number of nonworking mothers is falling rapidly, but must continue to fall if employment targets are to be met. For policy purposes it is important to distinguish between those whose choice is relatively undistorted (married mothers) and those who may be eligible for state benefits. The single mothers face us with the more serious problem.

The first issue is the availability and conditionality of income support from the state. In some countries, like Britain, support is available without any job search requirement. In others, job search is required except when the children are very young. Generally, participation is higher where job search is required. A second issue is the availability of work with suitable hours. Where part-time work is readily available, some mothers who would not otherwise work will choose to do so. Then there is the question of leave. If a pregnant mother retains her right to return to her job, employment rates will be higher. And, finally, there is the issue of childcare – the more childcare is available, the more women will work. If Europe wishes to achieve its employment targets, all these issues will have to be addressed.

We have focussed so far on the supply side of the market, but the demand side is also important. If wages are held too high, employers will not employ the available supply. There are two issues here. One is the general level of real wages. At a given level of unemployment, these will be pushed too high, either if the unemployed are not effectively supplying their labour, or if there is autonomous wage push, due for example to union militancy or rises in import prices. Wage push is only likely in the context of unions and has been

40-52% of subsidised jobs represent net additions

avoided in many of the smaller European countries by coordinated efforts of employers and unions (The Netherlands), or sometimes by the unions on their own (as at times in Sweden), or by employer solidarity (Portugal).

The second and most serious problem concerns relative wages, across skills or regions. Unemployment rates are much higher for unskilled people. One reason for this is a greater rigidity of wages at the bottom end. However, most legal minimum wages in Europe are low enough to cause no problem. Indeed, in some monopsonistic markets they may even raise employment. The more serious consequences of wage rigidity occur at the regional level, where overly high wages are a major cause of unemployment in the former East Germany, southern Italy and southern Spain.

Experience in the US (and to a degree the UK) suggests that marked differences in unemployment rates across regions can be reduced whenever two re-equilibrating factors are at work. The first is wage adjustment. If unemployment is higher in one region than another, wages in the high unemployment region decline vis-à-vis wages in the lowunemployment region. This attracts investment, which leads to more jobs in areas of high unemployment. The second reequilibrating factor is regional labour mobility: net migration away from the high-unemployment regions.

In Continental Europe, these two re-equilibrating factors are often not allowed to operate properly. Centralised wage-setting institutions deter the emergence of significant regional wage differentials. At the same time, a number of factors - including state transfers to the high-unemployment areas - reduce the pressure to migrate. Thus, large regional labour market imbalances - the North-South divide in Italy and Spain or the West-East divide in Germany - are a prominent feature of the European landscape. Persistently high unemployment in some regions is also associated with low participation rates and a deterioration of the environment in which firms have to operate. In high-unemployment regions the public sector tends to pay more than the private sector (at least in terms of entry wages) and provides more job security. If it is difficult to get a public sector job when already employed in the private sector, this encourages "wait unemployment", where people (sometimes the most educated people) queue for public sector jobs to become vacant.

In order to move these regions away from the high unemployment/low participation equilibria in which they are

trapped, it is necessary to act on both the demand and the supply side. On the demand side, it is necessary to pursue greater decentralisation in collective bargaining; wages should be allowed to vary across regions so as to reflect more closely the differences in labour productivity and the cost of living. Decentralisation in pay determination should extend to the public administration and be accompanied by the introduction of incentives for higher productivity and hiring procedures that discourage queuing.

On the supply side, the task is to bring welfare-to-work principles into the cash transfers provided to non-employed individuals in these regions. A key requirement here is to have unemployment benefits, rather than other instruments (like early retirement and invalidity pensions) that merely encourage non-participation in the labour market rather than supporting job search. Welfare-to-work should encourage regional labour mobility, but should circulate information on jobs available in more buoyant labour markets and sometimes also subsidise moving costs. Regional mobility should not necessarily involve long-range migration, as there are often areas within the high unemployment regions that are more dynamic.

Finally, there is the thorny issue of employment protection. In public rhetoric it is common to attribute high European unemployment to high employment protection. But in fact employment protection is especially high in some European countries (like Portugal, Sweden, Norway and The Netherlands) where unemployment is well below the US level. The bulk of the economic evidence suggests that employment protection raises long-term unemployment (by reducing hiring), reduces short-term employment (by reducing firing) and has no clear effect on total employment. But specific policies to prevent the closure of enterprises are inefficient.

The main danger of employment protection is that it strengthens the hand of workers in wage bargaining, leading to excessive wage pressure even when unemployment is high. Any effort to reduce employment protection should have this issue firmly in view. Unfortunately, the famous Spanish labour market reform of 1984 did not. It introduced temporary employment contracts, while actually increasing the security of the insiders who were already employed. As a result, there was no reduction in wage pressure. All efforts aimed at creating a dual labour market are likely to fail in exactly the same way as the original Spanish reform.



There must be changes in society's attitudes to older people

Our conclusion is that what really matter are:

for unemployment

- how unemployed people are treated
- regional wage flexibility

for the employment of older workers

- reduced subsidies to inactivity, used if necessary to finance employment subsidies
- lifelong learning
- an older official retirement age, where appropriate
- anti-discrimination legislation

for single mothers

- reduced subsidies to inactivity
- more child-care help
- more opportunities to work part-time

Full employment is not an unattainable dream. We can eliminate long-term unemployment and ensure that all who want work can find it within a reasonable time. The principles to achieve this aim cannot usefully be summarised as simply a need for "more labour market flexibility". In many cases what is needed is more activism and even, sometimes, more regulation.

We must stop pretending that "more flexibility" is the answer to all our employment problems. What is required is a clear focus on the three main issues that will make a difference: the treatment of the unemployed, the flexibility of wages and the treatment of older workers.

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Why has globalisation brought such large increases in exports to some countries and not to others? **Stephen Redding** and **Anthony Venables** look at the way internal geography and domestic institutions seem to be a large part of the answer.

Yawning gaps

here have been wide variations in countries' export performance over the last quarter century. South-East Asian countries have seen their real exports increase by more than 800% since the early 1970s, while those of sub-Saharan Africa have increased by just 70%.

This has raised concerns that, while some countries are benefiting from globalisation, others are at best passed by. We have investigated some of the determinants of these divergent export performances, looking in particular at the roles of external and internal geography.

Geography might be expected to affect export performance in several ways. One is that the strength of international demand linkages varies between countries. Countries in South-East Asia have been at the centre of a fast growing region, which has created rising import demand. Given all we know about the importance of distance as a barrier to trade, the export opportunities created by these growing demands are likely to be geographically concentrated, creating spillover effects between countries in the region.

We have developed a theoretical model of bilateral trade flows, using gravity techniques to estimate the model's parameters. This enables us to break down each country's actual export growth into two parts. One is based on a country's location relative to sources of import demands, which we call its "foreign market access". The other is linked to changes within the country, which we call its "supply capacity". We find that a substantial part of the differential export growth of various countries and regions since 1970 can be attributed to variations in the rate at which their foreign market access has grown.

Changes in one country's foreign market access arise from changes in aggregate import demand from other countries – particularly those that are geographically close. There may also be particular effects arising, for example, from regional integration agreements. We, therefore, refined our model to allow the ease of trading within regions to differ from that between regions. Such intra-regional effects are positive for Europe and negative for sub-Saharan Africa. Also, they have increased significantly over time in North America and Latin America.

In order to investigate the determinants of each country's supply capacity, we developed a simple theoretical framework within which supply capacity depends in equilibrium on a country's internal geography, its business environment (such as institutional quality) and its foreign market access. All three characteristics turn out to be statistically significant and quantitatively important determinants of export performance. For example, almost all of sub-Saharan Africa's poor export performance can be accounted for by poor performance under each heading. (The theoretical model that we



developed and use here is described in full in our Discussion Paper No. 549.)

A key feature of theoretical models of product differentiation and trade costs is the existence of a pecuniary demand spillover across countries. An increase in expenditure on traded goods in one country raises demand for traded goods in other countries and, because of trade costs, this effect is greater for neighbouring countries than for distant ones. This implies that growing import demand in other countries will be an important source of export growth as well as domestic supply-side considerations. We begin by investigating the relative importance of these two sets of considerations.

Data on the value of bilateral trade flows for 101 countries between 1970 and 1997 are obtained from the NBER World Trade Database (Feenstra et al., 1997; Feenstra, 2001). The US GDP deflator has been applied to these current dollar data to obtain a measure of trade flows in real terms. We combined the trade data with information on geographical characteristics (eg bilateral distance, or existence of a common border) and with data on GDP and population from the World Bank. (See Appendix A of DP549 for further details.) We are concerned here with the long run determinants of real export growth. Therefore, in order to smooth year-on-year fluctuations which may be substantial for small countries, we have averaged bilateral trade flows over four-year periods. With 28 years of data, this yields seven periods for analysis.

The results of our estimations for all 101 countries are shown in the Appendix to DP549. Here, in order to provide a broader overview of the sources of export growth, we aggregate the results for nine geographical regions: North America; Latin America; Western Europe; Eastern Europe; Sub-Saharan Africa; South-East Asia; "Other" Asia; Oceania; and Middle East and North Africa. A region's foreign market access (FMA) and supplier capacity are the sum of the values for all countries within the region.

The upper two panels of Figure 1 show the evolution of FMA for the first eight of these regions, while the lower two panels show changes in supplier capacity. To control for regions having different numbers of countries, the figure graphs average rather than total values. To clarify changes over time, we normalize supplier capacity so that it is expressed relative to its initial value. The results for Middle-East and North Africa are dominated by oil exports and are, therefore, omitted from the figure.

The initial ranking by regions has Eastern and Western Europe with the highest level of FMA. (This high position for Eastern European is not as surprising as it might seem, because the FMA estimate measures where countries are *relative to* world import demands.) At the bottom of this initial ranking is Oceania. The most striking feature of the

Export opportunities created by growing import demands are likely to be geographically concentrated



Figure 1. Regional FMA and Supplier Capacity

time trend shown in Figure 1 is the rapid growth in FMA for South-East Asia and the acceleration of "other Asia" in the second period.

Since the observed growth of exports is to be explained by the combination of foreign market access and increase in supply capacity, identifying the size of the FMA factor reveals the extent to which a country's export growth has been due to its improved internal supply performance rather than changes in external conditions. Table 1 examines growth rates of FMA and supplier capacity in further detail for all nine regions (Again, the results for all 101 countries can be found in DP549.) The "benchmark" at the top of the table shows the growth rates in the indicated periods of overall world exports and displays hypothetical values for the growth of foreign market access and supply capacity that would be observed if all countries had an identical export performance.

A number of results stand out. South-East Asian countries experienced much faster export growth than the benchmark in both the first and second halves of the period under study. In the first half this was driven particularly by supply capacity growth. In the second, FMA growth became relatively more important. The full results show that, for most countries in this region, FMA growth was generally faster in the first half than in the second. For some of the earlier developers (eg Japan, Taiwan and South Korea), supply capacity growth slowed sharply in the second half, while the later developers (eg Philippines, Thailand, Vietnam) experienced a dramatic increase in supply capacity growth in the second half.

The rest of Asia experienced below average export growth in the first half of the period, but this was accounted for by much slower than average supply capacity growth, which more than offset faster than average market access growth.

Table 1.	Regional sources of export growth, 1970/73 -
	1994/97
	0/ votes of everyth

% rates of growth

This was in sharp contrast to the second half of the period, when close to average market access growth was associated with supply capacity growth at twice the benchmark rate, giving export growth nearly twice the overall level.

Latin America shows a different picture. A close to benchmark rate of market access growth in both the earlier and later periods was associated with a close to benchmark supply capacity growth in the first and weak supply capacity growth in the second. Results for the Middle East and North Africa are again dominated by oil exports. For sub-Saharan Africa, taking the whole period together, the contribution of FMA to export growth was nearly 20 percentage points below the benchmark. This suggests that geographical location was important in explaining the

Region	Period	Exports	Foreign Market Access	Supplier Capacity	Region	Period	Exports	Foreign Market Access	Supplier Capacity
Benchmark	Periods 1-7				Sub-Saharan	Periods 1-7			
	(1970/73-1994/97)	326.3	106.5	106.5	Africa	(1970/73-1994/97)	70.4	86.4	-7.2
	Periods 1-4					Periods 1-4			
	(1970/73-1982/85)	104.4	42.9	42.9		(1970/73-1982/85)	54.2	34.7	10.8
	Periods 4-7					Periods 4-7			
	(1982/85-1994/97)	108.5	44.5	44.5		(1982/85-1994/97)	10.5	38.4	-16.3
North	Periods 1-7				N Africa/	Periods 1-7			
America	(1970/73-1994/97)	289.0	166.1	110.9	Middle East	(1970/73-1994/97)	189.8	102.8	41.2
	Periods 1-4					Periods 1-4			
	(1970/73-1982/85)	92.7	59.4	54.0		(1970/73-1982/85)	245.5	48.4	135.7
	Periods 4-7					Periods 4-7			
	(1982/85-1994/97)	101.8	66.9	36.9		(1982/85-1994/97)	-16.1	36.7	-40.1
Latin	Periods 1-7				SE Asia	Periods 1-7			
America	(1970/73-1994/97)	4/97) 193.3 110.8 48.1		(1970/73-1994/97)	826.2	146.4	238.0		
F	Periods 1-4				F	Periods 1-4			
	(1970/73-1982/85)	90.2	40.4	43.5		(1970/73-1982/85)	233.7	47.9	119.0
	Periods 4-7					Periods 4-7			
	(1982/85-1994/97)	54.2	50.2	3.3		(1982/85-1994/97)	177.6	66.6	54.4
Western	Periods 1-7				Other Asia	Periods 1-7			
Europe	(1970/73-1994/97)	269.4	94.3	96.8		(1970/73-1994/97)	372.0	117.8	119.3
	Periods 1-4					Periods 1-4			
	(1970/73-1982/85)	75.1	33.0	34.1		(1970/73-1982/85)	76.5	45.7	21.0
	Periods 4-7					Periods 4-7			
	(1982/85-1994/97)	111.0	46.1	46.8		(1982/85-1994/97)	167.5	49.4	81.2
Eastern	Periods 1-7				Oceania	Periods 1-7			
Europe	(1970/73-1994/97)	187.4	94.8	39.6		(1970/73-1994/97)	166.8	104.3	29.9
	Periods 1-4					Periods 1-4			
	(1970/73-1982/85)	44.0	34.0	11.0		(1970/73-1982/85)	48.4	37.3	7.9
	Periods 4-7					Periods 4-7			
	(1982/85-1994/97)	99.6	45.5	25.8		(1982/85-1994/97)	79.9	48.8	20.4

	Periods 1-4			
	(1970/73-1982/85)	54.2	34.7	10.8
	Periods 4-7			
	(1982/85-1994/97)	10.5	38.4	-16.3
Africa/	Periods 1-7			
dle East	(1970/73-1994/97)	189.8	102.8	41.2
	Periods 1-4			
	(1970/73-1982/85)	245.5	48.4	135.7
	Periods 4-7			
	(1982/85-1994/97)	-16.1	36.7	-40.1
Asia	Periods 1-7			
	(1970/73-1994/97)	826.2	146.4	238.0
	Periods 1-4			
	(1970/73-1982/85)	233.7	47.9	119.0
	Periods 4-7			
	(1982/85-1994/97)	177.6	66.6	54.4
ner Asia	Periods 1-7			
ier Asia	(1970/73-1994/97)	372.0	117.8	119.3
	Periods 1-4			
	(1970/73-1982/85)	76.5	45.7	21.0
	Periods 4-7			
	(1982/85-1994/97)	167.5	49.4	81.2
eania	Periods 1-7			
	(1970/73-1994/97)	166.8	104.3	29.9
	Periods 1-4			
	(1970/73-1982/85)	48.4	37.3	7.9
	Periods 4-7			
	(1982/85-1994/97)	79.9	48.8	20.4

-7.2



 Table 2.
 % contributions of partner regions to the growth of foreign market access of each exporting region: Periods 1-7 (1970/73-1994/7)

			America	America	em Europe	In Europe	Saharan Atr	IC'O		ASIA
	FMA	Hour	Latin	Nes	42516	SUD	ME	St.	Pr Oth	e, O,
North America	166.1	141.4	3.2	9.5	0.3	-0.4	1.3	9.8	0.3	0.6
Latin America	110.8	59.1	19.3	14.0	0.4	-0.9	2.2	14.9	0.6	1.2
Western Europe	94.3	15.5	1.5	62.0	2.0	-0.5	2.9	10.2	0.5	0.4
Eastern Europe	94.8	14.4	1.4	60.7	3.0	-0.6	3.7	11.2	0.6	0.5
Sub-Saharan Africa	86.4	27.2	4.6	23.8	0.8	-2.4	6.0	23.8	1.4	1.3
N Africa/M East	102.8	20.4	2.4	33.0	1.1	-1.1	23.9	20.7	1.7	0.8
SE Asia	146.4	19.1	2.2	13.0	0.5	-0.7	3.4	104.7	1.9	2.3
Other Asia	117.8	21.3	2.7	19.4	0.7	-1.0	7.7	58.4	7.1	1.7
Oceania	104.3	30.0	5.1	13.2	0.4	-1.0	3.2	46.6	1.3	5.5

Note for Tables 2, 3, 4: A region's foreign market access (FMA) is the sum of the values of FMA for all countries within that region. The exporting region is shown in the rows of the table and the importing partner in the columns.

Table 3.% contributions of partner regions to the growth of foreign market access of each
exporting region: Periods 1-4 (1970/73-1994/7)

			c ^o	?	ope	Ř	Atri	Ç [®]		
	MA	North	Amenta atin	Americ	ern Full	an Furch	Saharan NEI	NA CE	Asia oth	er Asia
North America	× 59.4	51.6	0.4	2.4	-0.1	-0.2	1.8	3.2	0.3	0.2
Latin America	40.4	27.9	1.4	3.2	-0.2	-0.5	3.1	4.7	0.4	0.4
Western Europe	33.0	7.4	0.0	18.1	-0.3	-0.2	4.2	3.2	0.4	0.1
Eastern Europe	34.0	6.8	-0.0	18.3	-0.4	-0.2	5.2	3.6	0.5	0.1
Sub-Saharan Africa	34.7	12.6	-0.1	6.2	-0.3	-1.0	8.6	7.2	1.1	0.4
N Africa/M East	48.4	9.5	-0.0	10.3	-0.2	-0.3	2.1	6.5	1.4	0.3
SE Asia	47.9	8.5	-0.1	2.9	-0.2	-0.5	4.8	30.2	1.4	0.9
Other Asia	45.7	9.6	-0.1	4.8	-0.3	-0.6	10.7	16.9	4.1	0.6
Oceania	37.3	13.1	-0.2	2.3	-0.2	-0.8	4.5	15.3	1.0	2.4

Table 4.% contributions of partner regions to the growth of foreign market access of each
exporting region: Periods 4-7 (1982/85-1994/97)

	FMA	North	America	America West	en Europe	Sup Europe Sup	Saharan Atri	NA SF.	k ^{sia} Ott	er Asia Oce	sartia
North America	67.0	56.4	1.8	4.5	0.3	-0.1	-0.3	4.1	0.1	0.3	
Latin America	50.2	22.2	12.8	7.7	0.4	-0.3	-0.6	7.3	0.1	0.5	
Western Europe	46.1	6.1	1.1	33.0	1.7	-0.3	-1.0	5.2	0.1	0.2	
Eastern Europe	45.5	5.7	1.1	31.7	2.5	-0.3	-1.2	5.7	0.1	0.2	
Sub-Saharan Africa	38.4	10.9	3.4	13.1	0.8	-1.1	-1.9	12.3	0.2	0.7	
N Africa/M East	36.7	7.3	1.6	15.3	0.9	-0.5	1.9	9.6	0.2	0.4	
SE Asia	66.6	7.1	1.6	6.9	0.4	-0.2	-1.0	50.4	0.3	1.0	
Other Asia	49.4	8.0	1.8	10.0	0.7	-0.3	-2.1	28.5	2.0	0.8	
Oceania	48.8	12.3	3.9	7.9	0.5	-0.2	-0.9	22.8	0.2	2.2	



region's poor export performance. However, supply capacity also grew less fast than the benchmark in both halves of the period and some positive export growth was achieved in the second half as a result of market access growth offsetting a significant reduction in supply capacity.

Table 2 looks at each country's foreign market access growth, but does not distinguish the sources of this growth geographically. It would be interesting to know how much of a country's FMA growth came from the performance of other countries in their own region and how much from, say, a growth in North American market capacity?

A country's foreign market access can be divided according to geographical regions in which its markets are located and expressed as the sum of the access to markets in each region. The results for regional groupings are given in Table 2 for the period as a whole and in Tables 3 and 4 for the two halves of the period. Reading across the first row of the tables we see that North America derived virtually all of its FMA growth from itself. This reflects the fact that Canada's FMA is large relative to that of the United States (FMA captures access to markets *other* than one's own) and that the United States constitutes an extremely large share of Canada's FMA. Canada benefits much more from being located close to the USA than the USA benefits from being located close to Canada. Thus the "own region" effect accounts for over 98% of Canada's total FMA growth.

Latin America was much more dependent on FMA growth from outside the region, particularly in the first period. Of these extra-regional sources, North America was by far the most important. Western Europe provided the main source

There may be particular effects from regional integration

of FMA growth both for itself and for Eastern Europe. The striking features for sub-Saharan Africa are the negative contribution of its "own region" effect and the lack of any dominant external source of FMA growth.

The Asian figures illustrate two main points. One is the dominant role of intra-regional linkages with South-East Asia. The other is the growth in the importance of South-East Asia for "other Asia". This reflects partly the general westward expansion of economic activity in the South-East Asia region. Table 3 also interestingly indicates South-East Asia's growing importance for FMA growth in other regions, including Africa.

The model that we have been using assumes that trade frictions between countries are measured simply by distance and whether or not the countries share a common border. It is, of course, possible that the costs of trading within a region differ from those of trading between regions. So we added dummies to the model for whether two countries lie within the same geographical region. This specification allows differences between trade costs on transactions within a region and those between regions to be incorporated into the model in a general way that imposes a minimal degree of structure on the data. We are also able to analyse changes over time and relate these to explicit policy attempts at regional integration, including for example the North Atlantic Free Trade Association (NAFTA) and the European Union.

Over time, we observe a systematic increase in the estimated values of almost all the "within region" effects. The proliferation of Regional Preferential Trade Agreements is clearly having an effect, particularly for North America (which includes Mexico). At the beginning of our sample period we found a negative "within region" effect for North America - perhaps reflecting import substitution in Mexico or economic activity being more widely dispersed within the region than captured in our distance measures - but the estimated coefficient became positive in the period 1990 to 1993, during which NAFTA was signed. However, for South-East Asia the intra-regional effect diminishes sharply through time. This does not reflect diminishing intra-regional trade, but rather the particularly rapid growth of trade with countries outside the region.

In Western Europe, we found a systematic rise in the estimated "within region" effect over time. In Eastern Europe, its value follows an inverted U-shape, rising between the 1970s and 1980s (when COMECON policy was to stimulate trade within the then Soviet bloc) and declining markedly in the 1990s (following the fall of the Berlin wall and the abandonment of the COMECON system of public procurement and trading preferences).

The final stage of the analysis asks what determines a country's supply capacity. Intuitively, we should expect it to depend on a number of underlying characteristics, includ-

South-East Asian countries experienced much faster export growth



Figure 2. Regional export performance, 1994-7

ing size, endowments and internal geography. It will also depend, in equilibrium, on foreign market access, since this is one of the variables that determine the potential return to exporting. Our theoretical approach is described in DP549. The model includes variables for the value of exports, GDP, population and FMA. To represent internal geography we use the percentage of the population living within 100 km of the coast or a navigable river. To capture "institutional quality" we use a widely employed index of the protection of property rights based on the risk of expropriation. We also include a full set of dummy variables for the nine regions to control for unobserved heterogeneity across regions in the determinants of export performance, including institutional differences, technological features and regional characteristics. To what extent are the divergent performances of the nine regions explained by this model and which of the independent variables are driving the performance of different regions? Our results are shown in Figure 2. The first bar in each box shows the region's export performance relative to the world average after all owing for the effects of country size. The other four bars sum to this first bar, since they represent its four components. Bars three to five in each box show, respectively, the contributions of foreign market access, internal geography, and institutional quality. The second bar represents the residual, after controlling for these factors, ie the regional dummy.

What main points emerge from this analysis? First, North America (including Mexico) has high trade relative to the

Sub-Saharan Africa has low trade volumes given its income level

world, given its income and population. This is explained partly by relatively good market access and partly by its institutions. This is offset by relatively poor internal geography, leaving a substantial unexplained residual.

Second, Western Europe's high level of exports is accounted for by a combination of good market access, good internal geography and good institutions, leaving virtually nothing to the residual dummy variable. For Eastern Europe, the benefits of good market access and better than average internal geography and institutions are not fully reflected in the actual level of trade, leaving a large negative regional dummy. This is consistent with the idea that the legacy of communism during the post-war period has had a long-lasting effect on Eastern Europe's exports, captured here in the regional dummy.

Third, sub-Saharan Africa has low trade volumes given its income level. These are accounted for by below average performance on all three measures, together with some negative residual. Each of the three factors accounts by itself for between 20% and 30% of sub-Saharan Africa's low overall export growth. Although we are able to explain some of the above average trade ratios in South-East Asia, there remains a substantial positive residual that is likely to be explained in part by the entrepot activities of Hong Kong and Singapore. Finally, the outcome for Oceania combines low market access with good internal geography and institutions.

The changes in countries' export performance since 1970 is symptomatic, at least, of the extent to which they have succeeded in benefiting from globalisation. The real value of world exports doubled between the early 1970s and mid-1980s and doubled again from the mid-1980s to the late 1990s. In the second of these periods Latin American exports went up by just 54%, sub-Saharan Africa's by 10%, while those of the Middle East and North Africa fell by 16%.

We have made some progress in understanding the determinants of cross-country variation in both the levels and growth of exports. We have confirmed that geography creates substantial cross-country variations in the ease of access to foreign markets and is thus an important determinant of export performance. We have shown that a country's export performance also depends on its internal geography and a number of other domestic supply-side factors.

The more we can effectively control for external and internal geographical factors in analysing comparative export performance, the better we shall be able to identify the institutional features that also play a role. Since many of these are subject to policy control, empirical research in this area is of the highest importance.

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Unions past, present and future

David Metcalf charts the fortunes of the British trade union movement over the last half-century and suggests where it will have to concentrate to find its place in the new economy.

> nion membership in Britain rose by 4 million between 1950 and 1979. At its peak in 1979 it stood at 13.2 million, but haemorrhaged 5.5 million in the subsequent two decades (see Table 1). Presently, union membership is 7.55 million, including some 300,000 self-

employed. Since the Blair government came to power in 1997, the number of unionised employees has been roughly constant at around the 7.25 million mark, or 29% of the total.

Density of unionisation depends on demographic, job and workplace characteristics. It varies little by gender or ethnic origin, but rises with age up to 50 and falls off slightly thereafter. Those with higher education have density levels substantially above those with fewer qualifications. Teachers, nurses and other professional workers have the highest of any occupation (48%) and those in sales jobs the lowest (11%). Density rises sharply by tenure, a mirror image of the well-known finding that labour turnover is lower in workplaces, that recognise a union.

Small workplaces (under 25 employees) have density levels less than half those of larger establishments. People who work in public administration, education and health are far more likely to be members than those employed in business services or hotels and restaurants. In the public sector, three out of five employees are union members, but the corresponding figure for the private sector is fewer than one in five. Manufacturing now has a union density (27%) below that for the whole economy (29%). And an individual is more likely to belong to a union if she or he lives in the northern part of the UK than in south.

Table 1. Trade union membership and density, UK

	Membership	Density
	(000)	(% of workforce)
1950	9,289	40.6
1960	9,835	40.9
1970	11,178	45.9
1980	12,947	49.0
1990	9,947	35.3
2000	7,770	26.2

These membership data come from the Certification Officer, but are self-reported by unions and include some retired, unemployed and non-UK residents. The latest Labour Force Survey results (autumn 2001) indicate that in the UK there are 7.55 million members, including 0.3 million self-employed and that 7.25 million employees (29.1%) are union members.

The number and structure of unions has altered dramatically, too. A century ago there were 1,300 unions and at the end of World War II there were still nearly 800. Mergers, takeovers and the decline of unions for specific craft groups, like the Jewish Bakers and Sheffield Wool Sheep Shearers, has reduced this figure to 226. Indeed, the 11 unions with over 250,000 members each now account for almost three quarters of total membership. But some small unions do survive – including the Association of Somerset Inseminators and the Church and Oswaldwistle Power Loom Overlookers Society!

Going hand in hand with the decline in union penetration has been a profound change in the type of mechanisms that provide employees with a voice - a big switch away from "representative voice" to "direct voice". Representative voice occurs via a recognised trade union or works council. Direct voice bypasses these intermediate institutions. Instead, management and employees communicate directly with one another through, for example, team briefings, regular meetings between senior management and the workforce and problem solving groups, such as quality circles. Between 1984 and 1998, the proportion of workplaces with only representative voice arrangements halved, while those relying just on a direct voice arrangements nearly trebled. What happened was that unionised workplaces added complementary direct communication systems, while nearly all new workplaces opted for direct communication methods without recognising unions.

How can this sustained decline of membership in the last two decades of the twentieth century be explained? There is no single factor. Rather it was the consequence of interactions between several factors: the composition of the workforce and jobs; the roles of the state, employers, and individual workers; and unions' own structures and policies.

It used to be thought that the business cycle also helped explain membership levels, with persistent unemployment leading to declining density. But since 1993 unemployment has fallen continuously and so has density. So this explanation can be ruled out.

Shifts in the composition of the workforce and jobs are one ingredient. More highly unionised sectors, like cars and ships or the public sector, and individuals with a greater likelihood of being a union member (males or full-timers, for example) now account for a smaller proportion of total employment. So, as a matter of arithmetic, union membership has also fallen. But it turns out that such "composition" effects are less important than commonly realised, accounting for around a quarter of the fall in membership. The bulk of any explanation turns on convergence of membership levels within groups: unionisation of men has fallen to a similar rate to that of women and some convergence has also occurred for unionisation rates between full-timers and part-timers, large and small workplaces, and manufacturing and non-manufacturing employment.

The state's activities and policies affect union membership both directly, for example by legislation promoting or undermining union security, and indirectly, via its influence on the environment in which employers and unions operate. In the 1980s and 1990s the environment in which the social partners conducted their activities was profoundly affected by the onslaught on public sector activities and greater emphasis on product market competition. Public sector unions faced privatisation, compulsory competitive tendering and contracting out.

Collectivism was damaged in the public sector by taking a million nurses and teachers out of collective bargaining. In the private sector it was damaged by the promotion of company-based payment systems, like profit sharing and employee share ownership schemes, and by disabling public protection for the lower paid by abandoning both Fair Wage Resolutions and wages councils. Product markets were altered for ever by abandoning state subsidies to sectors like coal, steel and shipbuilding, and by axing exchange controls. Less obviously, they were also altered by policies such as selling rather than allocating commercial TV franchises and by building the channel tunnel. Each of these changes had the side effect of rupturing the previous, sometimes cosy, relationships between capital and labour.

Industrial relations legislation has played a more direct role in the ebb and flow of membership. In the 1980s legislation impaired union security by weakening and then outlawing the closed shop and interfering in check-off arrangements. The strike threat, a fundamental source of union power, was weakened by a succession of laws which permitted a union to be sued, introduced ballots prior to a strike and outlawed both secondary and unofficial action. This legislation simultaneously raised the cost to unions of organising and reduced the costs to employers of opposing them.

Did employers become more hostile to unions in the 1980s and 1990s? There is no evidence that union activity – the

The number and structure of unions have altered dramatically

wage premium causing higher labour costs, for example – resulted in a higher rate of closures among union plants compared with their non-union counterparts. Nor did management embark on wholesale derecognition of trade unions: the derecognition rate was steady at around 1% a year between 1984 and 1998. Although derecognition in some national newspapers, TV and the docks generated bitter industrial disputes and considerable media interest, such management action in other sectors was quite rare.

Rather, union decline turned mainly on the inability of unions to achieve recognition in new workplaces, reflecting Thatcherite views among some managers and the growth of investment from overseas. In 1980, 60% of establishments under 10 years old recognised unions, similar to the figure for workplaces 10 or more years old (65%). But over the next two decades unions found it progressively harder to organise new workplaces. By 1998 only just over 25% of workplaces under 10 years of age recognised a trade union, half the corresponding figure for older workplaces. This inability to get much of a foothold in new workplaces was not confined to private services. More stunning was the virtual collapse of recognition in newer manufacturing plants. Only 14% of manufacturing workplaces set up after 1980 recognise a union, compared with 50% of those established in 1980 or before.

There has been a large rise in the proportion of the workforce that has never belonged to a union, up from 28% in 1983 to 48% in 2001. It is not that existing members are guitting, but more that unions cannot get individuals to join in the first place. Another facet of declining overall membership is the ebbing of density even where unions are recognised. Younger employees are much less likely to belong to a union than older workers and this gap in membership rates by age has grown dramatically. This is a worrying trend from the unions' viewpoint, because such nonmembership is prone to persist across generations. Attracting younger employees and those in new workplaces into membership is difficult, if they (or their parents) have never experienced membership and if the benefits of membership are demonstrably, or perceived to be, lower than two decades ago.

Unions' own structures and policies matter, too. Consider a couple of examples concerning structure. Some unions, like the TGWU and ASLEF, did not find it easy to align the shop steward's role in a decentralised system with the need for a national union voice. And many union mergers simply resulted in a change of "market share" by shuffling



around existing members, rather than in achieving economies of scale and extra resources for more effective organising activity.

Union policy was often not clear either. The balance between servicing existing members and organising new ones was not always thought through. Until recently, the particular concerns of female members – work/life balance, parental leave, etc – have had low priority. In dealing with employers, the union movement took an age to come to terms with the break up of national bargaining in the private sector and spread of single union deals. Recent emphasis on cooperative industrial relations ("partnership") hints that these lessons have now been learnt.

So it is not surprising that union membership plummeted in the 1980s and 1990s. How could unions resist the altered structure of jobs, rising unemployment (in the 1980s and 1990s), a hostile state, more intense employer opposition and the growth of individualism? Unions do not thrive in adversity. In the 1950s and 1960s, under the postwar settlement and the growth of the welfare state, unions flourished. In the 1970s, when that settlement disintegrated, the union movement was well dug in - the fifth estate of the realm which many joined even if they disliked it. But in the last two decades of higher unemployment, altered industrial structure and intense product market competition unions needed the support of workers and employers. By and large they did not get it. What had previously been conforming behaviour - to recognise and to belong to a union became deviant.

Forty years ago Alan Flanders, a most perceptive contemporary observer, suggested that unions have both a "vested interest" and "sword of justice" effect. The vested interest impact turns on unions' influence on pay, productivity, profits, investment and employment. The question is, essentially, what effect do unions have on workplace and firm performance? The sword of justice – vividly described by



Flanders as unions' "stirring music" – is more about fairness and due process. In addition, unions also impact on employee relations through their bearing on the industrial relations climate and job satisfaction.

If the presence of a union in a workplace or firm raises the pay level, unless productivity rises correspondingly, financial performance is likely to be worse. If the product market is uncompetitive, this might imply a simple transfer from capital to labour with no efficiency effects, but it is more likely to lead to lower investment rates and economic senescence. In the 1970s and 1980s the evidence indicated that union members received a pay premium, but without the corresponding rise in productivity. If anything, demarcations, unofficial industrial action and multi-unionism lowered productivity. Hence profitability in workplaces with union recognition was below that in non-union workplaces.

Stephen Machin has studied the trend of the union wage premium in the 1990s. His findings are summarised

	Cross section	Joiners	Leavers	
Males				
1991	9	9	-13	
1995	6	0	0	
1999	0	0	0	
Females				
1991	16	15	-14	
1995	16	6	-8	
1999	10	0	0	

Table 2. Union wage effects 1991, 1995, 1999 %

Data came from British Household Panel Survey. The full details of Machin's study will appear in Metcalf (2003).

It used to be thought that the business cycle helped explain membership levels

in Table 2. For men, the wage premium fell from 9% in 1991 to zero in 1999, while for women it fell from 16% to 10%. More importantly, there is now no wage benefit for men in joining a union and no cost in leaving. For women, it does still pay to be in a union, but not as much as it used to and not in new jobs.

By the end of the 1990s the *average* union/non union differences in labour productivity were also negligible. But there are two sets of circumstances when union recognition continues to be associated with lower labour productivity. First, productivity is lower in workplaces with multi-unionism and fragmented bargaining. Such multi-unionism, though, is now rather unusual – only 7% of workplaces are characterised by fragmented bargaining. Second, productivity is also lower when the product market is monopolistic, the firm having only between one and five competitors. Here unions can manage to switch some of the monopoly profit from the owners of capital to their members.

In the past, the impact of union recognition on wages and productivity fed through into an adverse effect on profitability or financial performance. Now, on average, there are no significant overall links of this kind. But this "average" result conceals some interesting findings. Multi-unionism is still linked to worse financial performance where the bargaining remains fragmented. Where the firm recognises a union, it will have a less good financial performance if the union organises under half the workforce.

Thus, on average, the impact of unions on firms' pay, productivity and profitability is small. In these circumstances it is not surprising that there is also no strong evidence that union recognition hinders investment in plant and machinery. Indeed, the evidence on investment in human capital is that unionised workplaces invest more in their workforce than their non-union counterparts. But there remains one profoundly worrying trend for unions. Other things being equal, employment in a unionised workplace grows some 3% a year more slowly (or falls 3% a year more quickly) than in a non-union workplace. Even though it is unlikely that union activity is itself the cause of this differential change in employment, which has now been evident for 20 years, if it persists the implications for future membership levels are serious.

Though the impact of trade unions on economic performance is more muted than it was twenty years ago, they still wield the sword of justice in the workplace. Unions narrow the distribution of pay, promote equal opportunity and family friendly policies, and lower the rate of industrial injuries. The spread of pay among unionised workers is smaller than the spread among their non-union counterparts. This is because unions protect the pay of those on low earnings and because unionised workplaces make more use of objective criteria - seniority for example - in setting pay rather than subjective factors, like merit. Unions also compress the pay structure between different groups in the labour market: women and men, blacks and whites, and those with health problems and the healthy. If there were no unions, the gender pay gap would be wider by 2.6% and the race pay gap by 1.4% bigger. These are very substantial effects. When it was introduced in 1999, the national minimum wage particularly impacted on female pay - two thirds of those affected were women - but it only narrowed the gender pay gap by a little under 1%. The impact of unions on narrowing the gender pay gap is three times as strong as that of the national minimum wage.

Union recognition is associated with a much greater likelihood of the workplace having some form of equal opportunity policy and an array of family friendly policies designed to encourage female employment. These practices include parental leave, working from home, term only contracts, and the possibility of switching from full- to part-time employment and job shares. Women in unionised workplaces are much better off in terms of career opportunities, flexible work arrangements and general support for family responsibilities than their counterparts in non-union workplaces.

Such "family friendly" policies go hand in hand with better performing workplaces. A workplace with an array of family friendly policies has a greater likelihood of above average financial performance, labour productivity, product or service quality, and lower employee turnover and absentee rates than one without such practices. Even if the causal mechanism behind such associations is unclear, this evidence is something for unions to build on in their attempts to appeal simultaneously to management and to workers.

Unions also cut industrial accidents. An accident in this context is defined as where an employee has sustained any one of eight injuries during working hours over the last 12 months: including bone fractures, burns, amputations and any injury that results in immediate hospitalisation for more than 24 hours. Unions tend to organise in workplaces where an accident is more likely to occur, but their presence lowers the accident rate by a quarter, compared with non-union plants. This favourable effect occurs because unions lobby for safety legislation and take industrial action locally to make the workplace safer. Many trade unions also provide health and safety courses. Further, where a union is recognised, employees with concerns about accidents are more likely to be listened to rather than labelled as a nuisance.

A union presence also influences workers' perceptions about the governance of the workplace. This includes the climate of relations between management and employees,

The Union decline turned mainly on the inability to achieve recognition in new workplaces

the trust employees have in their managers, and managerial performance. On average, workplace governance is perceived as poorer among employees in workplaces with recognised unions, relative to their counterparts in nonunion establishments. Better perceptions about governance in non-union workplaces may flow directly from the use of briefing groups, team meetings and the like.

This "average" finding is only part of the story. Once the decision is taken to recognise a union, governance is profoundly affected by the way the parties go about their business. First, governance is perceived to be better when there is a balance of power between management and union in the workplace. Very strong or very weak unions detract from a good climate or high trust. Second, when the union is recognised it is better for management to support membership: recognition coupled with hostility to individual membership produces the worse outcomes. Third, unions are perceived to be more effective when workplace governance is good.

Managers' perceptions of the climate of employee relations have also been analysed and confirm the thrust of these findings concerning individual employees. Unions with onsite representatives, which have the capacity to operate as a strong voice for workers, or a strong agent for the employer, are held by managers to generate a good climate. The implications are clear-cut. Once the decision is taken to recognise a union it makes sense to encourage membership and ensure that the union is effective in representing employees.

What can unions do to reverse declining density and achieve a sustained rise in membership? Broadly there are two routes to revival. Either employment in unionised sectors of the economy has to grow relative to non-union employment, or unions must engage in more intense organising activity and enhance their appeal to both employers and potential members.

It is unlikely that any boost in the aggregate number of jobs will occur disproportionately in the already unionised sector. In the (highly unionised) public sector, while the number of teachers, nurses and police is rising, overall there will not be much growth in employment in the next decade. In manufacturing, employment now is only a little over a third of its 1966 peak and unions anyway find it just as difficult to get recognised in new manufacturing plants as in private services. Similarly there is no suggestion of strong growth in jobs in utilities or transport. It is likely, instead,

Table 3.	Coverage of collective agreements and union membership:		
	UK employees in employment, autumn 2001		

Covered by collective agreement

		Yes	No	Total
	Yes	5.5m (22%)	1.7m (7%)	7.2m (29%)
Union member	No	3.4m (14%)	14.1m (57%)	17.5m (71%)
	Total	8.9m (36%)	15.8m (64%)	24.7m (100%)

Calculated from Kevin Brock "Trade union membership: an analysis of data from the autumn 2001 LFS", Labour Market Trends, July 2002, 343-354. Example: 8.9 million employees (36%) are covered by collective bargaining. Of these, 5.5 million (22%) are union members and 3.4 million (14%) are not union members.

that the major share of any growth in employment will occur in private services, where the present union density is only 15%.

So unions will have to invest more in organising and servicing activity. This may yield a larger return presently than in the last two decades, because the climate of opinion fostered by the state is no longer hostile to collective labour institutions. But the allocation of such servicing and organising investment requires considerable thought. Consider Table 3. It shows that 8.9 million employees are covered by collective agreements, but over one third of them (3.4 million) are free riders, as they are not members of a union. Looking at the evidence the other way round, a quarter (1.7 million) of total union members (7.2 million) are not covered by collective agreements. (This includes teachers and nurses, whose pay is settled by arbitration rather than collective agreements.) In the last decade, many (particularly smaller) workplaces have abandoned collective bargaining without actually derecognising the union. By far the majority of employees (57%) is neither covered by a collective agreement nor belongs to a union.

The evidence in Table 3 provides serious food for thought for unions. First, absorbing the free riders – so-called "infill" recruitment – might be an attractive (and cheap) method of boosting membership. Second, retaining those members where the firm no longer engages in collective bargaining may prove difficult, because the union must convince such workers that membership is still worthwhile. Third, and most difficult, making inroads into the 14 million who are neither covered by collective agreements nor belong to a union is vital for any resurgence. But there is a delicate balancing act here: organising expenditure aimed at this group represents a "tax" on existing members, who may then become free-riders if subscriptions rise to finance the necessary organising. Around 20% of these 14 million workers either desire union representation or would be very likely to join a union, if one were available. This suggests a "representation gap" of some 2.8 million employees, a potentially rich pool of employees for unions to organise. However, for effective union presence in the workplace to follow, these targeted employees need to be concentrated. There are some interesting occupations involved here. Recently MSF-Amicus signed up some 200 Church of England clergy who have no employment rights, since the courts have held that their employer is divine not earthly. And the GMB has had some success in recruiting lap dancers!

Recognition occurs voluntarily, or via the law. Voluntary recognition stems either from true love (cooperation between capital and labour), or a marriage of convenience (a pragmatic second best). The legal route, inevitably associated with adversarial industrial relations, is a shotgun marriage, imposed on a resistant employer by an arm of the state.

Under the legal route, if a union can prove a majority of membership in the bargaining unit, then it gains recognition. If not, a ballot is held in which the union must win more than 50% of the votes cast in the ballot and must have a "yes" vote of at least 40% of the workforce in the bargaining unit.

The direct effect of this law has been tiny. Fewer than 20,000 workers have been covered by recognition orders since the law came into effect in 2000. However, its indirect or shadow effect is larger. Over 1,000 voluntary agreements have been signed in the last three years, bringing around 250,000 new workers under recognition. But the union focus remains traditional: the (ex-)public services, manufacturing, finance, transport and communication. Only one in six newly covered workers are in the rest of the private sector.

It is plausible that, in the longer run, the passage of the EU

There is now no wage benefit for men in joining a union

Directive on Information and Consultation will influence unions' futures rather more than the recognition law. It establishes, for the first time, permanent and general arrangements for information and consultation for all workers in the UK in organisations employing more than 50 employees. It will cover three quarters of the British labour force by 2008. Some employers may see this as an opportunity to create weak voice mechanisms. Others may see it as a chance to institute stronger arrangements, complementing other aspects of human resource management. The tough job for unions is to build on these schemes and to maintain and expand their role within them. The evidence seems to be that a union presence complements these arrangements and makes them more effective.

In broad terms there are just over 3 million free riders and just under 3 million employees who would be very likely to join the union, if one existed at their place of work. If unions could organise annually 5% of this 6 million pool of potential members, while keeping their 7.2 million existing members happy, their fortunes would be transformed.

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More sellers than buyers

Alan Manning has been looking at the weaknesses of the classical model of market competition in explaining the behaviour of the labour market and argues that we should learn lessons from the monopsony model.

ountries tend to be judged successes or failures by their ability to deliver jobs to those who want them and an adequate standard of living. So labour markets are important. The vast majority of us are wholly dependent

on the labour market for our livelihood. So how the labour market works and how it might be improved are also important.

Economists have had a lot to say on this subject. The default position of most of them is that, in the absence of government regulation, the workings of labour markets can be well approximated by the textbook model of perfect competition. In this idealised world, workers face a market wage for their labour that is equal to their productivity and a large number of employers, all competing for their services. In this world, if they found their employer attempting to lower their wages (even by 1p), the workers would all instantaneously walk out the door to seek employment elsewhere. Getting or losing jobs in this world is no big deal: they are everywhere.

This description of the labour market does not fit well with the way it is experienced by most of us. We go to the pub to celebrate when we get a job and we go to the pub to drown our sorrows when we lose one. Surveys that ask people to name something important that happened in the last year typically find that jobrelated events are the second most important category, after family events like births, marriages, divorces and deaths.

Getting and losing jobs is a big deal to so many of us for the simple reason that it is not as easy to find work as the textbook model of perfect competition would have us believe. Finding work we like in a place and at a time convenient for us is hard. Information about jobs is not perfect and there are substantial costs involved in changing jobs. The other side of this coin is that our employers have more power over us than the model of perfect competition would have us believe. If an employer cuts our wages, it may be true that we are more likely to leave than before and that it will be harder for the employer to replace us, but it is simply not true that all of us would walk out immediately.

Employers are interested in profits and they use their power over workers to keep wages down wherever they can. Economists have another textbook model appropriate to this situation: it is called monopsony.

Monopsony means "a condition in

which there is only one buyer for the product of a large number of sellers". So it refers to a situation in which there is only a single employer available to buy the labour of workers. While the stereotype of a mill town or pit village in the early days of the Industrial Revolution might fit this definition literally, few workers today really only have one potential employer. But the lessons of the textbook model of monopsony apply wherever the opportunities of workers are finite.

I have just written a book, "Monopsony in Motion: Imperfect Competition in Labor Markets", arguing that our understanding of the workings of labour markets would be much improved if we adopted the commonsense perspective that employers have some monopsony power over their workers and abandoned the view that employers are powerless in the face of impersonal market forces. Much of

Information about jobs is not perfect

Interventions should be innocent until proven guilty

the book is devoted to documenting how this view of labour markets improves our understanding of a wide range of labour market phenomena. This should keep academic labour economists happy, but why is it anything more than an academic argument?

The reason is that one's views on how the labour market works affect one's view on the wisdom of various policy interventions. For, as Keynes overquotedly observed in the General Theory: "The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back".

Today's scribblers are still hard at work: they can be found (among other places) on university campuses, in the pages of the Economist and in the reports of the OECD. Asked to analyse some labour market policy, the instinctive response of most labour economists is to fall back on the predictions of the textbook model of perfect competition.

If one thinks that labour markets correspond closely to the textbook theory of perfect competition, then one is likely to be hostile to interventions designed to remedy perceived deficiencies in its "free" workings. A famous result in economic theory tells us that the outcome of a perfectly competitive market will be efficient, though there is no reason to believe it is fair. Any intervention in the labour market is rather grudgingly tolerated on the grounds of equity, though typically associated with mutterings about the efficiency costs. This presumption that the "free market" is efficient has a powerful hold over the minds of economists.

However, if one thinks that employers have some monopsony power over their workers then one does not believe that the "free" market necessarily delivers an efficient outcome and one is inclined to be more sympathetic towards labour market interventions. This does not mean that any intervention is always to be considered good, just that there is no longer the presumption that it is always bad. Interventions should be innocent until proven guilty and not the other way round. To make all this more concrete, let us consider some examples from the past, present and future.

First, one from the past. Not many people argue these days that equal pay legislation should be abolished, but there was considerable controversy about it around the time of the introduction of the Equal Pay Act in 1970 and the Sex Discrimination Act in 1975. At that time, it was relatively common to hear economists argue that, if women earned less than men, that must be because they were less productive (because that is the only source of possible wage gaps in a perfectly competitive market) and that any attempt to artificially reduce the gender pay gap through legislation would inevitably result in women being priced out of jobs.

The simple reason why one does not hear this argument any more is that this prophecy of doom failed to come true. Although there is still a gender pay gap, it is lower now than in the past and the Equal Pay Act led to a noticeable rise in the pay of women relative to men: between 1970 and 1975 hourly wages for women went from 65% to 75% of the male level. There was no noticeable effect on women's employment, which continued to rise throughout this period. This would be a serious puzzle, if one believed that labour markets are perfectly competitive. It is not a puzzle, if one believes that labour markets are monopsonistic.

The "monopsony" approach suggests that one reason women get paid less than men is that the constraints imposed on their working lives by the allocation of domestic responsibilities in most households mean they are more vulnerable to exploitation by employers. In this case their pay can be raised without jeopardizing their jobs.

Second, an example from the present, Consider the case for and against the minimum wage. Surveys of economists typically find a large degree of consensus that the minimum wage is a bad policy, harming those it sets out to help by pricing some low-wage workers out of their jobs. In these beliefs, economists differ markedly from the general public, for whom the minimum wage is probably the single "left-wing" policy that commands the most support. The economists, as usual, are relying on the textbook model of perfect competition, where wages equal productivity. If wages rise faster than productivity, it will not be profitable for firms to employ the workers and job losses will result.

In contrast, the monopsonisitic approach argues that, because employers will use their power over workers to pay them a wage below

Women's employment continued to rise their productivity, there is some scope for raising wages without jeopardizing jobs. There is, of course, a limit to how much wages can be raised before job losses result: nice as the thought is, there is little doubt that a minimum wage of £50 per hour would cause serious economic problems. But, the modest levels for the minimum wage chosen in countries like the UK and the US do not seem to cause job losses among those affected.

Third an example from the future. The British government is currently resisting implementation of the EU's Working Time Directive, which would limit the number of hours that can be worked in a week. The argument is that, if workers want a shorter working week, the market can be relied upon to deliver it and so there is no case for intervention. But the monopsony approach suggests that, because employers make profits out of workers, they will always be pressing them to work more hours than they would freely chose. At the very least, we need to take a close look at the experience in Continental European countries with policies to reduce the working week before rejecting such legislation here.

Then there are the commonly accepted explanations of the widening gap in wages between rich and poor in countries like the US and the UK in the past twenty years. Seeing that wages in low-wage jobs are growing more slowly than those in high-wage jobs, most economists have concluded that the explanation lies in a shift in demand from low-wage to high-wage jobs. This shift in demand

There is some scope for raising wages without jeopardising jobs

is thought to be driven by changes in technology in general and information technology in particular. This widening gap in wage inequality is often regarded as an inevitable by-product of "progress" – of which we are all naturally in favour.

But this is not the only plausible story to explain what has happened. There turns out to be a close relationship in the US between the evolution of wage inequality and the level of the real minimum wage. In the 1980s, wage inequality rose sharply and the federal minimum wage fell in real terms, since it was left at the same nominal level. From the late 1980s there were three rises in the minimum wage, all associated with a decline in wage inequality that was then reversed as the real value of the minimum wage was eroded by inflation. There would seem a strong prima facie case that the minimum wage should be given a prominent role in explanations of US wage inequality and that the rising gap between rich and poor should be seen as the result of government policy, rather than inexorable technical progress.

But those who believe that the labour market is perfectly competitive just cannot accept this explanation. The reason is their faith that a rise in the minimum wage must price some lowskill workers out of jobs. The fall in the real value of the minimum wage in the 1980s should have priced some low-skill workers back into employment. But employment rates fell among these workers at this time.

If one accepts that the labour market is monopsonistic, then there is no mystery here. There is no particular reason to think that the minimum wage, set at modest levels, will cost any jobs at all. So it is quite possible to reconcile the view that the minimum wage was the main culprit in explaining the rise in wage inequality with the observation that employment rates of low-skill workers fell.

For the UK one cannot tell exactly the

These changes have lowered the floor to wages

same story about the rise in wage inequality because, for most of the last twenty years, we have not had a national minimum wage. But welfare benefits have only been increased in line with prices, not wages; trade unions have been in decline; and the Wages Councils, which set minimum wages in certain sectors, have been abolished. All these institutional changes act to lower the floor to wages in the labour market and can explain why low-wage workers have been doing so badly.

There is a theme that runs through all of these examples: the wisdom of particular policies cannot be judged by economists armed with nothing but some pet economic theories. They can only be judged by their effects. In many ways, this is in tune with the spirit of the times, which demands "evidence-based policymaking" and emphasises a pragmatic and commonsense approach to public policy, free from excessive ideological baggage.

It is time for labour economists to dump the comforting certainties that the textbook model of perfect competition appears to offer and to recognise that the world is a more complicated and messy place.

Alan Manning is Director of the CEP's Labour Markets programme and Professor of Economics at the LSE.

His book "Monopsony in Motion: Imperfect Competition in Labor Market" will be published by Princeton University shortly.

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