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Inside this issue: Wadhwani on market values

By choice?

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by Arnaud Chevalier and Tarja Viitanen

By choice or by chance

What effect does teenage motherhood have on later life? Arnaud Chevalier and Tarja Viitanen look at the evidence about the "Class of '58" to measure the cost of early pregnancy and its implications for public policy.

Britain has the worst record on teenage motherhood in Western Europe. It is also the only EU country where the rate has not decreased in the past 20 years. The UK figure is nearly three times as high (at around 30 births per 1000 women) as the European rate (around 11 per 1000).

Early motherhood is commonly associated with lower levels of education, reduced participation in the labour market and poverty. The lower income of teenage mothers affects not only their own but also their children's economic well-being.

Governments have repeatedly emphasised the importance of reducing the rate of teenage motherhood, mainly to reduce the risk of long-term social exclusion and welfare dependency. The 1992 White Paper "Health of the Nation" promised to halve the teenage pregnancy rate by the year 2000, a goal now postponed until 2010. However, the rate of teenage conception has remained stable for the past decade at 45 per 1000 women, with approximately 40% of those pregnancies ending in abortion.

The question of interest to policy makers is whether early pregnancy really has a significant impact on later socio-economic outcomes, or whether these observed outcomes are due to other factors. In short, are teenagers who give birth just like other teenagers except that they are supporting a child, or are they different in the first place? If early motherhood per se leads to poorer outcomes, then policies reducing early childbearing will have positive effects on the economic prospects of these young women. However, if the different adult outcomes are linked to pre-motherhood differences between teenage mothers and those who delay childbearing, then the poorer outcomes would surface regardless. The answer to this question is, therefore, essential in designing an effective policy to reduce social exclusion and the transmission of poverty from one generation to the next.

For our research into this question for the UK we used data from the National Child Development Study. This is a continuing survey of all individuals born in Britain during the first week of March 1958. We took the fifth wave of the survey, conducted in 1991 when the respondents were 33 years old, and selected a sub-sample of 5,799 women, who responded to a questionnaire relating to the history of their fertility. Those who provided information on the outcome of their first pregnancy and the year in which it happened were used in the analysis. (See box for details on the data used.)

For our sample, Table 2 gives the proportions (broken down by teenage pregnancy experience) of those who invested in post-compulsory education, the highest qualification they obtained, their labour force status, their total of months spent in the labour force, their average wage by age 33 and, for mothers, the average number of their children. The sample size is smaller because of missing information on

We divided the women in our sample into four categories: never been pregnant, mothers/still pregnant in 1991, miscarried and aborted. The year in which the outcome took place was misreported in 82 cases and unreported in another 20, leaving us with a sample of 5,697 women: of these 1,070 had never been pregnant, 3,895 were pregnant for the first time when answering the questionnaire or had given birth at the end of their first pregnancy, 445 had miscarried and 287 aborted (see Table 1).

Unlike most such studies, we assessed the age at which the pregnancy started by using the date at the end of the first pregnancy (regardless of its outcome), combined with information on whether the delivery was late or premature.

Aged 33, nearly 20% of our sample had never been pregnant. The outcome of their first pregnancy was affected by the age at which it took place. More than 33% of those under the age of 16 terminated their pregnancy by abortion. This proportion fell to 12% for those aged 16 to 18 and to less than 4% for adult women.

We split our sample into women who gave birth before their 18th birthday, women who conceived before 18 but did not give birth, and all other women. Some, who miscarried or aborted their first pregnancy, got pregnant again before their 18th birthday. For this group, we determined the time and outcome of their second pregnancy. This left us with 404 who gave birth as teenagers, another 99 who conceived but did not give birth and 5,194 who did not report being pregnant as a teenager. The rate of under-18 pregnancy in this sample reaches 71 per 1000, slightly higher than comparable estimates for the UK population.

Table 1 First pregnancy outcomes

	Never pregnant	Currently pregnant	Birth	Miscarriage	Abortion	Total
Pregnant by 16	–	–	58	4	35	97
Pregnant by 18	–	–	333	25	48	406
Other	1070	60	3444	416	204	5194
Total	**1070**	**60**	**3835**	**445**	**287**	**5697**

Childbearing has a clear negative effect on schooling investment

Table 2 Outcome by age 33 by teen fertility group

	Birth before 18	Conception, no birth	No conception before 18
Attending post-compulsory education	0.094	0.322	0.446
	[328]	[87]	[4528]
No qualification by age 33	0.149	0.051	0.045
Other and CSE	0.236	0.119	0.125
O level and low vocational	0.308	0.373	0.254
A-level and medium vocational	0.231	0.220	0.279
Degree and high vocational	0.077	0.237	0.297
Months in labour force	55.10	104.45	109.8
	(51.05)	(59.60)	(58.15)
	[328]	[87]	[4528]
Working	0.625	0.713	0.700
	[328]	[87]	[4528]
Pay per hour	3.933	5.047	5.718
	(1.595)	(2.729)	(2.977)
	[168]	[50]	[2493]
Number of children if greater than 1	2.699	2.227	2.052
	(1.174)	(0.837)	(0.828)
	[328]	[66]	[3299]

Note: Mean (Standard deviation) [Number of observations]

educational achievement and misreporting of labour force status in 1991.

Childbearing has a clear negative effect on schooling investment. Only 10% of teenage mothers attended post-compulsory education, compared with 45% for other teenagers. This educational choice made at age 16 had a permanent impact on the educational attainment of teenage mothers. By the age of 33, they were three times as likely as those not pregnant in their teens to have no qualification. At the other end of the distribution, fewer than 8% of teenage mothers had a degree or high vocational qualification, compared with nearly 30% for other women. Women without a teenage motherhood or pregnancy had almost twice as much work experience by the age of 33 and were 8 percentage points more likely to be in the labour force. These combined effects produce a pay differential of 45% between the two groups of women.

Teenagers who became pregnant but did not give birth have characteristics common to both groups of women. By choice or by chance, they did not give birth and, therefore, faced similar conditions to women who did not give birth as teenagers. Nevertheless, they tended to be less qualified and were 13 percentage points less likely to have attended post-compulsory education than teenagers who did not get pregnant. Despite similar lengths of experience in the labour market, by age 33 they earned on average 13% less. These facts support the view that some of the negative effects associated with teenage motherhood are in fact due to the original characteristics of teenage mothers.

We looked at two measures of education: attendance in post-compulsory schooling and highest qualification obtained at the age of 33. For those interested in the detail of our model and the economic techniques used, they are set out in detail in our CEP Discussion Paper "The Long-Run Market Consequences of Teenage Motherhood in Britain".

As with other studies, we included the following in our factors likely to influence the decision to invest in post-compulsory education: (1) family characteristics, such as parental education, family structure, number of siblings, parental ethnicity (approximated by country of birth), social class of the father, mother's interest in child's schooling and financial situation at age 16; (2) the child's academic characteristics (test score in English and maths at age 7 and use of public libraries at age 10); and (3) social characteristics, approximated by the type of school attended and the socio-economic background of the area (measured as the proportion of children with fathers in non-manual occupations in the school attended). The sample dropped to 4,233 women because we left out those who reported themselves as suffering from a long-term illness (48 observations) and those that did not participate in the third wave of the study at age 16 (1,416).

Table 3 summarises the results. Unsurprisingly, parental education, maternal attention, having foreign-born parents

Table 3 Post-compulsory education (marginal effects)

	Probit	IV
Teen mother	-0.238	-0.231
	(0.036)	(0.389)
Father Education	0.021	0.021
	(0.006)	(0.006)
Mother Education	0.054	0.053
	(0.008)	(0.008)
Both parents @16	0.074	0.077
	(0.029)	(0.030)
Nbr. of sibling @16	-0.032	-0.033
	(0.006)	(0.008)
Mother foreign born	0.133	0.132
	(0.052)	(0.053)
Father foreign born	0.182	0.181
	(0.053)	(0.053)
Use of library @10	0.087	0.087
	(0.023)	(0.023)
Mother interest @7	0.089	0.088
	(0.020)	(0.022)
Math test @7	0.040	0.040
	(0.011)	(0.011)
English test @7	0.086	0.086
	(0.013)	(0.014)
Comprehensive	0.096	0.097
	(0.024)	(0.024)
Grammar	0.222	0.223
	(0.037)	(0.037)
Other LEA supported	0.073	0.069
	(0.078)	(0.076)
Private	0.237	0.238
	(0.058)	(0.058)
Father SOC professional & manager	0.266	0.260
	(0.054)	(0.059)
Father SOC 3 non manual	0.176	0.169
	(0.058)	(0.061)
Father SOC 3 manual	0.128	0.121
	(0.052)	(0.054)
Father SOC 4 n m	0.112	0.101
	(0.091)	(0.090)
Father SOC 4 manual	0.058	0.052
	(0.057)	(0.062)
Financial trouble @16	-0.039	-0.042
	(0.037)	(0.042)
Peers: quintile 1	-0.147	-0.147
	(0.047)	(0.048)
Peers: quintile 2	-0.103	-0.104
	(0.048)	(0.049)
Peers: quintile 3	-0.096	-0.096
	(0.048)	(0.048)
Peers: quintile 4	-0.016	-0.017
	(0.055)	(0.055)
Observations	3757	3757
R^2 / pseudo R^2	0.2288	0.2216
Instrument		Menarche
Smith-Blundell Chi^2		Pr=.493

Note: Also includes dummies for the observations missing on the following variables: parental education and location of birth, number of siblings, use of library, ability test missing, type of school, social class of fathers and social class of peers' fathers. Standard error corrected for heterogeneity.

and a better social class were associated with more schooling, whereas broken family and a large number of siblings reduce it. Surprisingly, financial hardship at age 16 did not seem to affect educational choice.

Personal characteristics of the child also had the expected effect: better test scores and the use of public libraries improved the likelihood of post-compulsory schooling. Peer effects appear to be important in determining post-compulsory schooling decisions: the social environment, as measured by the social class of the fathers of the child's schoolmates, had a significant effect. Being in a school where fewer than 20% of fathers were in a non-manual occupation reduced the probability of post-compulsory education by 15%, compared with a school where more than 80% of fathers were in a non-manual occupation. Teenagers who were not in a secondary modern school were more likely to have attended post-compulsory education. This effect was strongest for grammar and privately funded schools. A teenage mother was 24% less likely to have invested in post-compulsory education, compared with other teenagers. Accounting for factors that may influence both the schooling and motherhood decisions, the negative effect of teenage motherhood is reduced to 12% to 17%.

Having children, by increasing the importance and value of domestic work, had an obvious negative impact on the length of time spent in the labour force. However, the effect of teenage motherhood on experience seems ambiguous. Women who do not bear a child as teenagers are mostly only deferring their motherhood. Thus, over a whole lifetime, teenage motherhood could be neutral to work experience. However, as wages increase throughout the life cycle, earnings forgone at a later point in life are likely to be larger than earnings forgone during adolescence. Hence, adult mothers are less likely to drop out of the labour force than teenage mothers. So we would expect teenage motherhood to have a permanent negative effect on work experience.

Our sample here was restricted to mothers only (2,514 observations). Labour market experience is measured as the total number of months worked since age 16, with part-time work given a weight of 0.5. Figure 1 gives, for different numbers of children, the mean labour market experience for teenage mothers and for other mothers in the sample. At each family size, teenage mothers have significantly less work experience than other mothers.

Teenage motherhood seems to have a permanent effect on labour market experience, resulting on average in two and a half years less employment experience.

Again, it must be observed that the linkage between the decision to have a child as a teenager and lower labour market participation may not be causal. If there is some common link not identified in the data, then the effect of teenage motherhood on labour force experience would be biased upwards. In the model, teenage motherhood is estimated using as identifying variables the age of first menstruation, the woman's financial situation at age 16 and whether she had older siblings (who might play a role model). The calculations based on this data suggest that teenage mothers have unobserved characteristics that make them less attached to the labour market. However, accounting for this does not remove the previously measured negative effect of teenage motherhood on employment: teenage motherhood is associated with a reduction in labour market experience by age 33 ranging from 30 to 40 months compared with other mothers.

In analysing women's wages at age 33, the sample size dropped to 1,918 mothers, who gave complete information on earnings and working status. Of these, 1,196 were working. In this reduced sample, only 134 women had been teenager mothers, of whom 99 (74%) were working. This

Figure 1 Months of participation in the labour market by age 33

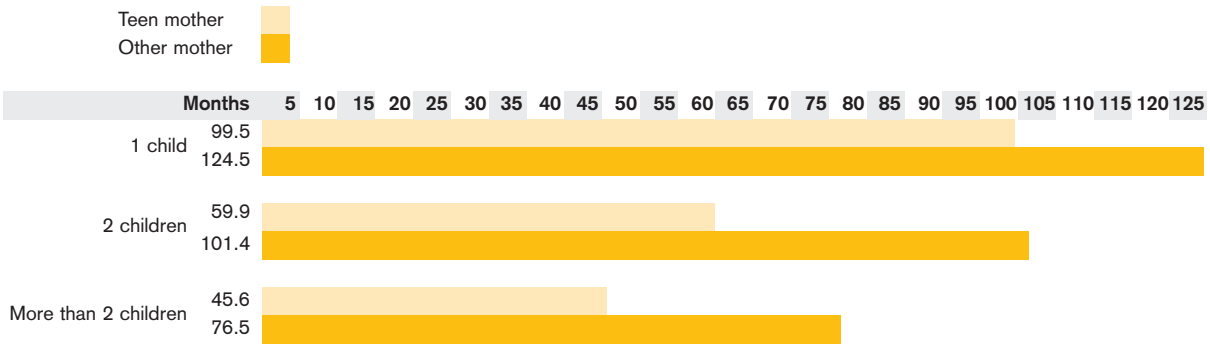


Table 4 Log hourly pay at age 33

	OLS	Heckman	Double selection	Heckman	Double selection
		Selection (1)		Selection (2)	
Teen mother	-0.118	-0.053	-0.102	-0.045	-0.084
	(0.037)	(0.042)	(0.040)	(0.041)	(0.040)
Other qual.	0.122	0.129	0.117	0.132	0.121
	(0.148)	(0.161)	(0.155)	(0.164)	(0.155)
CSE	0.025	0.038	0.027	0.041	0.040
	(0.048)	(0.052)	(0.055)	(0.053)	(0.055)
Vocational	0.086	0.112	0.090	0.116	0.117
	(0.048)	(0.052)	(0.054)	(0.053)	(0.055)
O-levels	0.164	0.173	0.159	0.179	0.169
	(0.076)	(0.082)	(0.079)	(0.083)	(0.079)
Vocational medium	0.094	0.111	0.093	0.112	0.105
	(0.048)	(0.052)	(0.055)	(0.053)	(0.055)
A-levels	0.096	0.100	0.090	0.104	0.096
	(0.066)	(0.072)	(0.075)	(0.073)	(0.075)
Vocational high	0.427	0.484	0.441	0.492	0.495
	(0.056)	(0.062)	(0.060)	(0.062)	(0.063)
Degree	0.590	0.621	0.588	0.625	0.614
	(0.073)	(0.079)	(0.072)	(0.080)	(0.072)
Experience 16-20	-0.095	-0.088	-0.091	-0.084	-0.090
	(0.039)	(0.039)	(0.035)	(0.039)	(0.034)
$(\text{Exp 16-20})^2$	0.015	0.016	0.015	0.015	0.016
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Experience 20-33	-0.002	-0.004	-0.003	-0.005	-0.004
	(0.007)	(0.007)	(0.008)	(0.007)	(0.008)
$(\text{Exp 20-33})^2$	0.002	0.002	0.002	0.002	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Math test	0.010	0.020	0.010	0.021	0.019
	(0.011)	(0.012)	(0.012)	(0.012)	(0.012)
English test	0.036	0.030	0.028	0.030	0.023
	(0.011)	(0.012)	(0.013)	(0.013)	(0.013)
Private/public	-0.108	-0.108	-0.108	-0.112	-0.110
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
Size <25	-0.206	-0.206	-0.203	-0.210	-0.200
	(0.030)	(0.029)	(0.030)	(0.029)	(0.030)
Size 25-99	-0.122	-0.118	-0.119	-0.121	-0.118
	(0.030)	(0.029)	(0.033)	(0.029)	(0.033)
Size 100-499	-0.061	-0.057	-0.057	-0.060	-0.054
	(0.033)	(0.032)	(0.034)	(0.031)	(0.034)
Part time	-0.125	-0.134	-0.131	-0.131	-0.133
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)
IMR: Participation		0.260	0.139	0.296	0.411
		(0.045)	(0.093)	(0.034)	(0.131)
IMR: Teen mother			0.067		0.074
			(0.035)		(0.034)
Constant	1.642	1.454	1.445	1.432	1.278
	(0.072)	(0.084)	(0.116)	(0.079)	(0.129)
R-squared/log like	0.49	-1576.7	0.49	-1587.7	0.49

Note: Standard error for Kernel-based estimates are obtained by bootstrap (500 replications).

Financial hardship at age 16 did not seem to affect educational choice

is a significantly larger proportion than for non-teenage mothers (61%).

As a benchmark, least squares regression estimates are shown in the first column of Table 4. The model includes the highest qualifications obtained by age 33, years of labour force participation (split before and after age 20) and measures of ability at age 7. Some characteristics of the job are also included. As expected, more educated mothers with greater ability, especially in English, earned more than the others. Teenage participation in the labour force has a negative effect, as it typically captures the effect of leaving school early. The effect of adult work experience was less clear. This is typical of cohort data, where variation in experience is mostly captured by length of education and, for women, the number of their children. Teenage motherhood had an effect on adult wages over and above the education and labour force experience. Accounting for differences in educational attainment and early labour force participation, women who experienced early motherhood were paid 12% less than other women.

Again this will be an overestimate if teenage mothers have characteristics that make them less likely to participate and less productive. First, we estimate the decision to participate. Women whose mothers were working when they were seven were more likely themselves to be working at age 33, which could reflect a role model played by the mother. Previous participation had a mixed effect on current labour market attachment. Mothers who were working at the age of 16 were 8% more likely to be working at 33, but those not working at age 23 were 13% less likely to be

Table 6 Double selection: teenage mother (marginal effects)

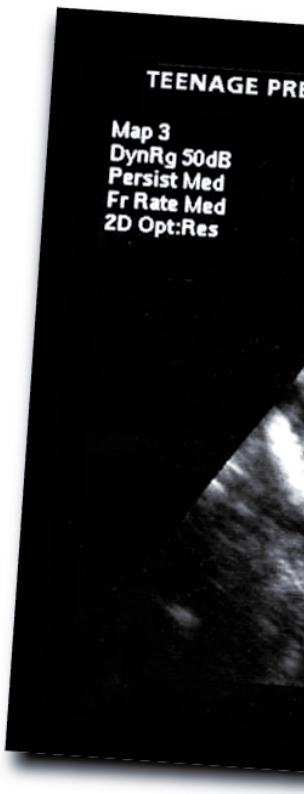
	Teen motherhood
Math test	-0.009
	(0.006)
English test	-0.009
	(0.006)
Parents	-0.026
	(0.017)
Father SOC prof and manager	-0.057
	(0.012)
Father SOC 3 non manual	-0.034
	(0.015)
Father SOC 3 manual	-0.012
	(0.018)
Father SOC 4 non manual	0.007
	(0.038)
Father SOC 4 manual	-0.040
	(0.013)
Menarche	-0.009
	(0.004)
Financial trouble @16	0.080
	(0.026)
Birth order	0.008
	(0.003)
Constant	-0.299
	(0.478)
Observations	1918
Pseudo R^2	0.092

Note: Also includes dummies for the observations missing on father's social class. Standard errors are corrected for heterogeneity.

Table 5 Matched estimates of differences in log hourly pay: include control for children

	One to One		Kernel	
	Bandwidth=0.01	Bandwidth=0.001	Bandwidth=0.01	Bandwidth=0.001
Teen mother (T=1)	1.294	.293	.284	.294
Other mother (T=0)	1.515	.528	.456	.437
P(T=1)-P(T=0)	-0.220 (0.057)	-0.234 (0.060)	-0.172 (0.044)	-0.143 (0.054)

Note: Standard error for Kernel-based estimates are obtained by bootstrap (500 replications)



Those who were working at 23 may have postponed childbearing longer

working. This could reflect differences in the timing of having children and their age. Those who were working at the age of 23 may have postponed childbearing longer and have younger children at age 33 than other mothers. Variables capturing the opportunity cost of labour market participation, number of children and marital status were also included. These variables are often assumed to be related to the decision to participate in the labour market and may also be correlated with teenage motherhood. Compared with having only one child, having two reduced the probability of labour force participation by 6% (and having more than two by 19%). By age 33 those who had been teenage mothers were more likely than other mothers to be working full-time (49% as against 35%). Thus the pay differential between women who experienced teenage motherhood and other mothers cannot be explained by the so-called "part-time wage gap". Accounting for selection in teenage motherhood and labour market participation, the effect of teenage motherhood on earnings at age 33 is a penalty reaching 5% to 10% compared with other mothers.

Teenage motherhood, labour force participation and wage levels are all interacted elements that should be estimated simultaneously in order to arrive at entirely satisfactory conclusions. The difficulty of such an approach is in finding enough valid exclusion variables. Instead, in Table 5, we present results obtained with matching estimates. The matching is based on the estimated probabilities of teenage motherhood, shown in Table 6. As these estimates do not allow for selection in the labour market, they are probably biased upwards. They show that teenage mothers suffer a pay penalty against other women ranging from 14% to 22%, a significantly higher figure than in previous estimates.

To summarise, our evidence indicates that having a child as a teenager has dire consequences in terms of post-compulsory schooling, long-term labour market outcomes and pay differentials. Hence teenage motherhood is likely to lead to the transmission of poverty from one generation to the next.

It would thus appear that policies preventing the long-term consequences of teenage motherhood should focus first on helping teenage mothers to achieve their school potential. The fact that teenage motherhood appears to have a substantial negative effect, even after allowing for educational differences, suggests that teenage mothers have difficulties combining labour market participation and child rearing. A second focus, therefore, should be on easing their integration into the labour market. Easy access to child care and the Working Families Tax Credit are the kind of promising strategies against the permanent negative effects of early childbearing that need to be tested for their cost effectiveness.

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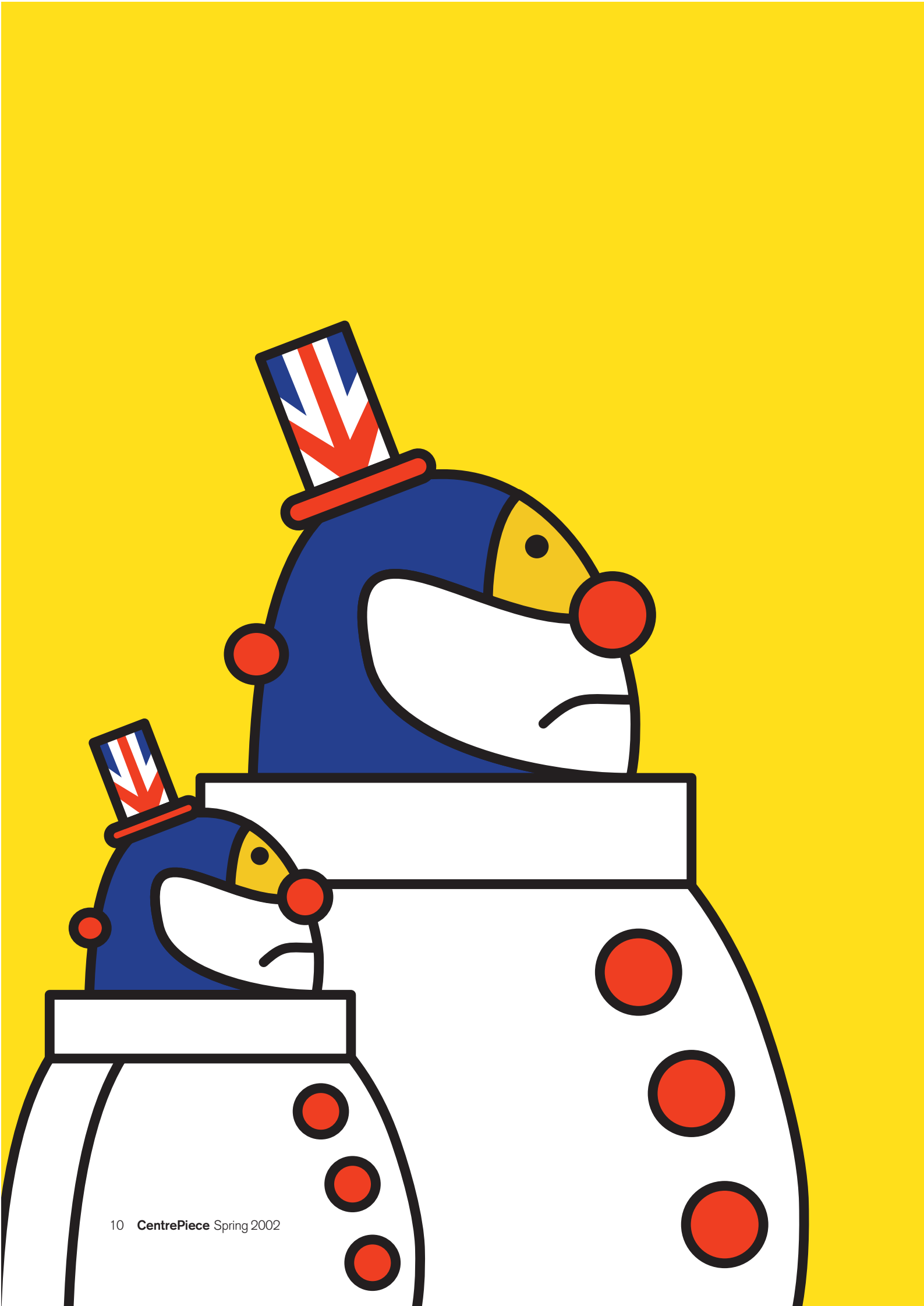
Tarja Viitanen is a PhD candidate at the University of Warwick.

This article based on their paper "The Long-Run Market Consequences of Teenage Motherhood in Britain" available from the CEP (Discussion Paper No. 516).

Teenage mothers suffer a pay penalty ranging from 14 to 22%



by Hilary Steedman

Are we being serious about apprenticeship?

Hilary Steedman looks at on-the-job education in six Continental countries to find a benchmark against which to judge British policy for vocational training and finds it seriously wanting.

"Beyond compulsory school age, we are determined to build a coherent and high-quality vocational education and training system that is the envy of the world." From *Opportunity and Skills in the Knowledge-Driven Economy.* A Final Statement on the Work of the National Skills Task Force from the Secretary of State for Education and Employment, 2001

Last year, the government gave a commitment to build or (some would say) rebuild a vocational route to high-level skills and qualifications in Britain. This was a recognition that we do not have the coherent and transparent vocational route to intermediate and high level skills that, in other countries, has contributed to raising post-16 educational achievement.

Apprenticeship was identified as the chosen institution to form the backbone of this renewed drive to promote post-16 vocational education and training. More specifically, Modern Apprenticeship, established in 1994 by the then Conservative government, was to be the vehicle. It is, therefore, appropriate to spell out the standards that would need to be reached if vocational education in Britain is to become "the envy of the world". A comparison with apprenticeship provision in other European countries where it is successfully established would provide a benchmark against which our Modern Apprenticeship (MA) could be assessed.

We have looked at six countries - three German-speaking (Austria, Germany and Switzerland) and France, Denmark and The Netherlands. The German-speaking countries have a strong "dual system" apprenticeship tradition. At least two thirds of all their young people embark on apprenticeship training. France has a much more restricted apprenticeship tradition; between 10 and 15% enter apprenticeship, but numbers have grown rapidly in recent years, which makes it an interesting case for study. Denmark, with a long tradition of apprenticeship, has seen a rolling programme of change and reform for the past two decades. The proportion of young people entering apprenticeship has remained roughly constant: around a third of young Danes gain a vocational qualification through apprenticeship. The Netherlands completely restructured vocational education following legislation in 1996. The decline in apprenticeship numbers in the 1980s was reversed in the 1990s. Today around 30% of young people in The Netherlands enter an apprenticeship programme. In England and Wales the percentage of a young people starting apprenticeships is around 9% for Modern Apprenticeship and 11% for National Traineeships.

To establish our benchmark we examined a number of key aspects of apprenticeship provision in the six Continental countries. These were the framework and standards involved, including the length of training, the content of programmes, the methods of assessment and the final standards required. We then looked at the ways in which apprentice places were provided, how candidates found them, the educational background of apprentices, the incentives to enter and stay the course, completion and success rates and subsequent employment records. Finally, we looked at how the various national schemes are managed and financed. Using the findings as a benchmark, we are able to make a judgement about our own Modern Apprenticeship scheme.

The conclusions do not make comfortable reading. In Britain, in contrast to the other six countries, apprenticeship is not regulated by national legislation. Instead, regulations

and guidelines issued by the Department for Education and Skills (DfES formerly DfEE) are followed in a variety of ways in different sectors, leading to wide variations in provision from sector to sector and locality to locality. Financial flows in Britain are also more complex than our benchmark countries. Public funds flow from the budget of the DfES to the local Learning and Skills Councils (LSCs). The money is then distributed to training providers, who contract with a variety of bodies for the provision of apprentice training and assessment required by DfES regulations. In the process, equity and transparency are largely lost, so that the funding devoted to off-the-job training of apprentices can vary from one local body to another and from one provider to another. This contrasts sharply with the greater standardisation of off-the-job training, funding and provision on the Continent achieved by direct transfers to public sector providers.

In other European countries these offers of apprenticeship places enable individual firms to signal immediate and anticipated skill needs to young people. Apprenticeship structures then enable firms to meet those skill needs by appropriate training in partnership with government. By offering places, employers provide good quality information to young people and their parents on future career possibilities. Young people are thereby encouraged to invest in further education and training in a way that helps to meet skill needs and improve the probability of future employment.

In Britain, the government practice of target-setting for apprentices in terms of numbers has led to the side-lining of employers in favour of "training providers" to whom most government funding is channelled on condition that they enable the government to meet its targets. Training providers then "place" young people with employers with little regard to local skill needs. The prime advantage of apprenticeship as a means of signalling skill need and satisfying demand for skills has thereby been almost entirely dissipated.

In every other European country, apprenticeship is a recognisable "brand". Although apprenticeship occupations differ in various ways, the national framework, underpinned by binding legislation on key features (duration, standards and assessment) provides a common identity which allows the "marketing" of apprenticeship to employers and young people. In Britain, apprenticeship has no legally defined identity. This gave rise to wide variations in the administration of government funding for MA by the Training and Enterprise Councils until their abolition two years ago.

Variability in duration, standards, achievements and funding are such that it is impossible to define apprenticeship in Britain except as "some combination of paid work and training". While other factors have contributed, this must be one of the main reasons for the chronic information failure that cripples attempts to promote apprenticeship in the UK – and which has led in the past to apprentices who did not know they were on apprenticeship schemes and widespread confusion among employers.

It is a condition of apprenticeship in the other European countries that young people in apprenticeship continue to be educated like their contemporaries within publicly provided upper secondary education. This requirement permits a simple and stable pattern of financial flows and ensures that vocational practice is underpinned by sound technical knowledge and general education and greatly facilitates further progression to higher-level vocational courses from apprenticeship.

In Britain, lobbying by employers' organisations in the early 1980s led to the introduction of National Vocational Qualifications (NVQs) that could be awarded on the basis of assessment on employers' premises alone. The same organisations pressed for the abandoning of any minimum fixed period for apprenticeship programmes and for NVQ to be the only qualification to be "aimed for" in government-sponsored youth training. Employer pressure has continued to ensure that apprentices in Britain have no entitlement to education during apprenticeship.

There is ample evidence that, in a small number of sectors with a tradition of apprenticeship training, schemes provided are of good quality and produce well-qualified young people. But these sectors only account for around 20% of young people on apprenticeship in Britain today. It is clear that the Modern Apprenticeship initiative has failed to spread good practice, as it exists in the traditional sectors, to sectors new to apprenticeship – such as Health and Social Care, Customer Service, Business Administration, Hotels & Catering, Hairdressing and Retailing – which together account for around half of all apprentice starts in Britain and for almost all female apprentices.

This failure only serves to underline the fatal weakness of a non-statutory framework for apprenticeship, compounded by a rush to fulfil government targets with little regard to quality or local skill requirements. But it should not be assumed that all is well in the "traditional" apprenticeship sectors where standards are high. Employers in these sectors are being damaged by the weaknesses of the scheme as a whole. Well-qualified recruits to apprenticeship are difficult to find, information about the excellent opportunities available to young people in their industries does not reach its target population and employers are unable to access government funding for apprenticeship in areas where total funds available have already been allocated elsewhere.

In all the other European countries, but not in Britain, employers' legitimate concern to minimise costs and maximise specific training is counter-balanced by other bodies, which are accorded a compensatory role in the governance of apprenticeship by the legislative framework. In the dual-system countries, trade union representatives perform the essential role of representing the interests of employees and of apprentices themselves at every level – local to national – of the apprenticeship structure. In France

and The Netherlands trade union influence is less important, but the role of protecting the interests of the apprentice and of other employees is undertaken by government and by educational interests.

Apprenticeship has been characterised as a public-private partnership. In the British "partnership" both trade unions and government have failed to provide sufficient compensatory counter-balance to the voice of employers in the design and day-to-day running of apprenticeship programmes. With only a very few honourable exceptions, mainly in the "traditional" sectors such as engineering and electrical contracting, trade unions have done nothing to protect the interests of young people entering apprenticeship. Unlike their German counterparts, they have not fought for the right to education and transferable training and, unlike their Danish counterparts, they have not upheld the importance of assessment based on objective evidence.

For successive governments, the work-based training route has been all but invisible. The result is that apprenticeship in Britain, judged as a programme, falls short of that provided elsewhere in Europe on every important measure of good practice.

The evidence on which this judgement is based is reported in my paper "Benchmarking Apprenticeship: UK and Continental Europe Compared" (September 2001). Let us look at an outline of the main points to emerge.

In Britain, apprenticeship is not regulated by national legislation

Take duration for a start. In the German-speaking countries – Austria, Germany and Switzerland – the length of the apprenticeship training period for each occupation is fixed by legislation. The specified period can be shortened in the case of entrants who hold the *Hochschulreife (Abitur)* in Germany or the *Maturität* in Austria. In Switzerland, it is rare for entrants to apprenticeship to also hold a university entrance qualification. There is also provision in Austria for the training period to be shortened for those who already have substantial experience or qualifications in the occupational area concerned. However, the vast majority of those who enter "dual-system" apprenticeships in these three countries follow the apprenticeship training programme for three or more years. This reflects the fact that apprenticeship is understood to be a period of education as well as of training.

Denmark also has a long-established tradition of apprenticeship training based on "dual system" principles. With effect from 2001 it has reformed and revised apprenticeship education and training arrangements and requirements. Young people studying for a recognised vocational qualification will still alternate between periods of study in college and periods of work in a firm, but the new arrangements stress flexibility and individualisation of training programmes within a statutory framework. As a consequence, training periods are expressed in terms of minimum ($1^1/_2$) and maximum ($4^1/_2$) years duration. The typical duration is $3^1/_2$ to 4 years. The basic (first part) of

Table 1 Distribution of Apprenticeship Training Programmes by Duration of Programme, Austria, Denmark, Germany, Switzerland

	% of all programmes		
	2 years and <3 years	3 years and <4 years	4 years
Austria	10	88	2
Denmark		typical	
Germany	6	72	22
Switzerland	30	50	20

Sources:
Switzerland:
Statistik Schweiz 15. Bildung und Wissenschaft Die Berufslehre in der Schweiz http://www.statistik.admin.ch.stat_ch/ber15/dlehrvertr_intro.htm accessed 21/03/01
Austria:
http://www.bmwa.gv.at/service/leservice/broschde/%FCbersicht2.htm accessed 21/03.01
Denmark:
http://www.uvm.dk/pub/2000/newstructure/6.htm accessed on 22/03/01
Germany:
Berufsbildungsbericht, 2000 2.2 Table 42

the apprenticeship training cannot be completed in less than 10 weeks of college-based education and the college-based component of the main (second part) normally has a maximum limit of 60 weeks. (Table 1 gives the distribution of apprenticeship training programmes in the dual-system countries by duration.)

France and The Netherlands are fundamentally different from the "dual-system" countries with respect to duration. A significant reform in 1993 in France led to a fundamental change in the composition of the apprenticeship population. Previously, the law had only allowed apprentices to get the lowest level of vocational qualification. Higher level qualifications were only available through full-time education. As a result, apprenticeship recruitment was principally from those who had been unsuccessful in the school system. Since 1993 apprentices have been permitted to work for all nationally recognised vocational qualifications, extending to first degree level and even beyond.

The 1996 reform of vocational education in The Netherlands required vocational courses to be offered at four levels and be available through full-time (college) and part-time (apprenticeship) routes. The structure was designed to facilitate a switch from one route to the other without disruption of the study programme. Substantial amounts of work-based training are required for the full-time students and not only for apprentices. The clear formulation of levels of training also allows those on the apprenticeship route to continue subsequently to a higher level of qualification, including vocational courses in Higher Education (either in apprenticeship or via the full-time route).

In both France and The Netherlands apprenticeship can lead to an occupational qualification at a number of different levels, ranging from the equivalent of the UK NVQ 2 (in The Netherlands a very small number go no further than an NVQ1 level) to the equivalent of UK NVQ 5 (France) or UK NVQ 4 (Netherlands). Those who move from one level to the next will spend a period of 2+2 or even 2+2+2 years in apprenticeship. (Table 2 gives the distribution of apprenticeship training programmes in France and The Netherlands by duration as determined by level studied.)

In the UK a fixed training duration is no longer a condition of public funding of youth training. When Modern Apprenticeship (MA) was introduced in 1995, duration was left at the discretion of the employer. In 1998 only 10% of British employers surveyed by the DfEE expected apprenticeship in their companies to last less than 18 months. In three sectors, Child Care, Health and Social Care and Hotels and Catering, between 20 and 25% of all apprenticeships were expected to last for 18 months or less. However, a recent analysis by Fuller and Unwin shows that the gap between expectation and actual length of stay in apprenticeship is huge. In four of the ten largest apprenticeship sectors accounting for roughly a third of all apprenticeship starts, Health and

Table 2 The Distribution of Participants on Apprenticeship Training Programmes by Duration as Determined by Level, France (1996) and The Netherlands (1999/2000)

NVQ equivalent Level	2	3(a)	4	5
Duration (years): France	2	2	2	2
Duration (years): Netherlands	2-3	2-4	3-4	–
Distribution of Apprentices:				
France (%)	64	28	5	3
Distribution of Apprentices:				
Netherlands (%)*	55	45	–	–

* In The Netherlands 45% are at Levels 3 and 4

In other European countries apprentices continue to be educated like their contemporaries

Social Care, Retailing, Hotels and Catering and Customer Service, the average actual length of stay in apprenticeship was less than one year. In all sectors, average actual length of stay was considerably less than "expected" and none was longer than two years.

The Confederation of British Industry (CBI), representing some 250,000 employers, is opposed to fixed training periods. This opposition must be understood in the context of employers' opposition to "time-serving", which characterised British apprenticeship in the first half of the twentieth century, and their determination to retain control over all aspects of learning in apprenticeship. In its response to the government's 2000 consultation document on Modern Apprenticeship, the CBI wrote: "Employers are not educators and Modern Apprenticeships are part of the foundation learning system – not the education system."

All the six continental European countries that we are using to establish benchmarks require apprenticeship training programmes to consist of three essential elements: general education, technical education, and occupational skills and competences. In the "dual-system" countries, standards of general and technical education are differentiated by occupation. It is accepted that some occupations will make more stringent demands in certain areas of general and technical education than others. In Germany, Austria and Switzerland, the regional Ministries of Education and in Denmark the national Ministry draw up standards in consultation with the industry body responsible for a given occupational area. There is no attempt to align standards of general or technical education in apprenticeship with a wider national standard.

In France and The Netherlands all apprenticeship programmes are required to offer general and technical education components. However, the balance may vary by occupation and by level. There is an attempt to align standards across occupational areas and within levels. Overall in all these six countries, between 70 and 80% of an apprentice's training period is spent in the workplace, including time devoted to workplace training. The balance is roughly equally between general and more occupationally-focused technical education.

The distribution of the apprentice training period between workplace and school or college is thus weighted heavily towards time spent in the workplace. In all three "dual-system" countries and in The Netherlands, off-the-job education and training is ensured through compulsory attendance at publicly provided vocational colleges or institutions within the wider upper-secondary school system. In France, until recently, employers and Chambers of Commerce were the main providers of off-the-job education and training for apprentices. However, the curriculum to be followed and assessment procedures used are identical to those in full-time publicly provided vocational education. A recent innovation in France is provision for apprentices to attend a publicly funded vocational *lycée* for their off-the-job education and training.

Modern Apprentices in the UK are currently only required to "work towards" an NVQ qualification at Level 3, although to receive a final certificate of completion they must obtain the relevant NVQ 3 certificate and demonstrate competence in Key Skills. The NVQ is a checklist of occupational competences, demonstrated and assessed in the workplace. Consequently, the UK apprenticeship has not, up to now, measured up to the requirements for separately taught and assessed technical and general education found in other European countries.

The government-appointed National Skills Task Force found the lack of a coherent body of underpinning knowledge, which characterised the NVQ template, seriously damaging to the development of Modern Apprenticeship. The Modern Apprenticeship Consultation Document put forward a proposal for a technical certificate to be an additional requirement alongside the NVQ qualification. This proposal could bring the balance of learning in the UK Modern Apprenticeship closer to the structure of that in continental Europe. However, there is still no recognition by the government that general education should continue during apprenticeship.

In our benchmark countries, the successful completion of apprenticeship is conditional on successful completion of *both elements* of the apprenticeship programme: off-the-job general and technical education and on-the-job acquisition of skills and competences. General and technical education is assessed by tests or examinations set and marked by outside bodies, or by the regional education authorities. Occupational skills and competences are almost invariably assessed by practical tests (with external assessors) and through oral examination (conducted by a panel of assessors). In addition, portfolio evidence is now also used as part of assessment of practical work.

In the UK, of the two elements of the Modern Apprenticeship that constitute the full qualification – NVQ 3 and Key Skills – only Key Skills may be assessed by examination. There is enormous variation in the way NVQ competences are assessed and the extent to which assessors have a financial stake in the outcome of the assessment. Most apprentices are assessed on their performance of tasks in the workplace. UK apprentices are not assessed by objective methods which promote confidence that consistent standards have been applied, regardless of sector, occupation or employer. While the employer of an apprentice may be indifferent to the reliability and transparency of the qualification awarded, lack of consistent, objective and reliable assessment lowers

the labour-market value of the qualification to the apprentice.

In all our six countries, responsibility for finding a place as an apprentice rests with the young person. He or she must find a willing employer. This places a requirement on the young person to consider carefully the occupation/sector that he or she wishes to train for and the type of company where they would like to work. Since employers will be recruiting the apprentice with a view to trainability and productive work, a further requirement is that the aspiring apprentice should have acquired an appropriate foundation of skills and aptitudes. These two requirements, prior consideration of career options and adequate foundation for training and progress in a work environment, are met in various ways.

In the three German-speaking countries, the process starts in the last two years of compulsory school, when specific periods are set aside for careers teachers and visits are arranged to Centres run by the Careers Service. The Internet now provides additional high quality information on careers, the type of work involved, working conditions, skills and aptitudes required. In Germany, for example, the Chambers of Commerce (*Industrie und Handelskammern*) provide sites which list all apprenticeship places on offer locally for a range of recognised occupations. For obvious reasons, demand for apprenticeship places in the former East Germany has consistently outstripped supply and there has been government intervention to subsidise apprenticeship places. In the former West Germany, demand and supply have been kept in equilibrium despite rising cohort numbers by strong government pressure on employers. Overall, the number of apprenticeship places offered and accepted annually is still impressive – 630,000 in 1999 – equivalent to around two thirds of the 16-year-old cohort.

In Austria, where apprenticeship covers a narrower range of more traditional occupations than in Germany, there has been a marked fall in the number of places offered. In 1992 nearly half the age group (48.7%) entered apprenticeship; in 1996 just under two fifths (39.5%) did so. In the early 1990s the supply of places outstripped demand, while by the mid-1990s the ratio of demand for places from young people to supply by firms was over 2:1. Improved financial incentives to firms have resulted in more training places being offered and the decline in participation in Austria has now levelled out. A similar situation occurred in Switzerland, The Netherlands and France in the early 1990s and in all these countries steps were taken to improvement incentives to firms to offer training places. This has now resulted in an increase in places offered.

Over the last decade it has proved more difficult in all the dual system countries to achieve the employer-apprentice match. There has been no formal raising of entrance requirements and, in all the German-speaking countries, there are no formal pre-requisites for entry to apprenticeship. But employers having a clear idea of the qualities and potential needed for successful completion of apprenticeship and firms claim that it has been increasingly difficult to find young people with the qualities and attributes that they seek among those applying. A number of factors have contributed. There have been changes in economic activity and hence in the skill needs of firms and in the type of occupations offered. But the supply of young people coming forward has also been modified by the increased probability that a young person will stay on in full-time education after the end of compulsory education. It seems likely, then, that the average ability level of applicants for apprenticeship has declined to some extent. Combined with more exacting standards and a more competitive economic environment, this fall raises the cost to firms of providing apprenticeship and means that firms are more reluctant to recruit.

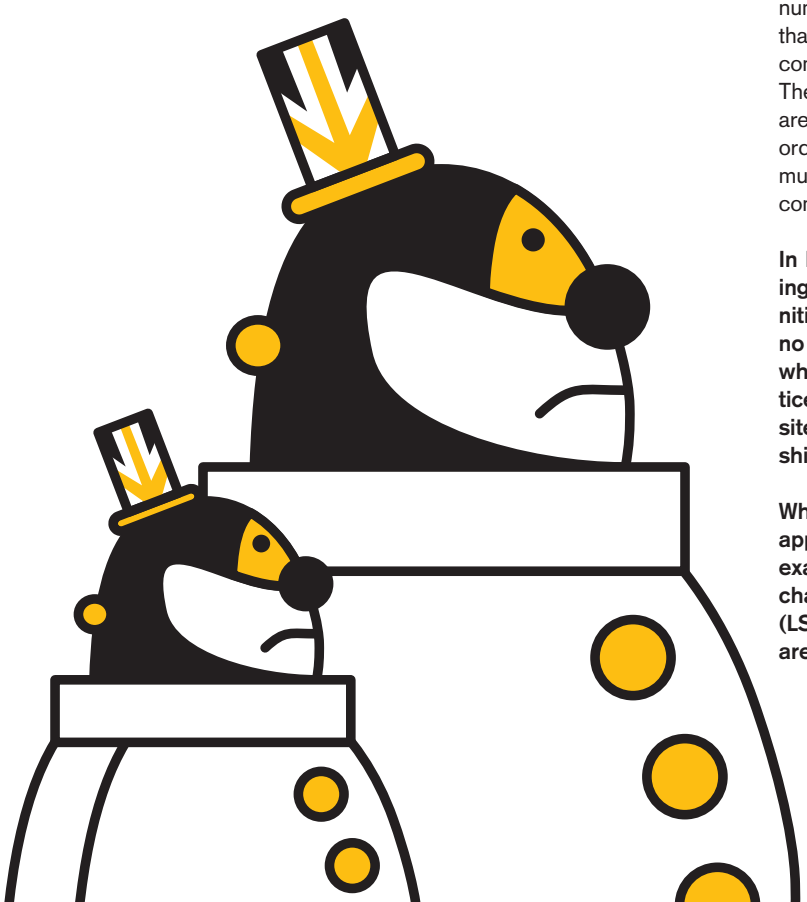
The German-speaking countries have addressed this problem from both the supply and the demand side. Young people who apply for apprenticeship without success have been encouraged to take pre-vocational or other full-time courses in post-compulsory colleges. These courses revise and consolidate basic skills and provide additional preparation for entry to the work environment. Around 10% of entrants to apprenticeship in Germany in 1998 had followed such courses. In Germany, the average age of apprentices has increased markedly, from 16.6 years in 1970 to 18.2 years in 1985 and 19.1 years in 1998. This suggests that those entering in 1998 were, on average, aged around 18.

Denmark has seen some decline in numbers entering apprenticeship. Nevertheless, just over a third of any age cohort currently enters apprenticeship training programmes. An innovation is that this final year can be spent partly in school and partly in vocational college. Thus, as in Germany, entrants to apprenticeship are likely to be aged at least 18. Those opting for the vocational route to qualifications also spend between 10 and 60 weeks (average 20 weeks) full-time in the equivalent of a College of Further Education on what is called the Basic Programme. In this programme, basic and vocational subjects are supplemented by educational and occupational guidance and counselling. The student can “sample” various vocational areas and decide on a suitable vocational route. Those with definite choices of occupation can “fast-track” through the basic programme. Before starting on the main part of the vocational programme (typical duration 3 to 3½ years),the student must find an employer willing to enter into an apprenticeship agreement. The vocational college plays an important part in this process through links with employers by means of the local Trade Committees (employer/employee organizations). If a student fails to find an apprenticeship place, the college may offer a “virtual place” and the student will cover the required occupational skills in the college. Currently around 6% of apprentices in

Denmark have places provided in this way by a college. The apprentice will alternate periods in the workplace and periods in college and be required to follow courses which amount (maximum) to 60 weeks of full-time study over the 3-3½ year training period.

The aspiring apprentice in France is less likely to have been prepared for the choice of an apprenticeship occupation while at school. The guidance process in French secondary schools (*collèges*) is normally restricted to outlining the routes that 16-year-olds can follow through the education system and the qualifications that can be obtained. This sharp division has its roots in the distinction made in French society between the public and private sectors. The education system is seen as a pillar of the public sector, while apprenticeship has traditionally been supported and provided by the private sector, most notably by French employers. French employers and those who work within the structures of apprenticeship complain in terms similar to those of their counterparts in the UK of the lack of status of apprenticeship and the perception that apprenticeship is only for the rejects of the school system. That was undoubtedly the situation for many years when the number of apprentices in France remained small (around 200,000 a year), mostly in artisan trades and occupations. However, since a number of changes were made to the laws governing apprenticeship – including allowing apprentices to obtain the whole range of educational qualifications up to and including Masters degrees – apprenticeship has expanded dramatically. The young person seeking an apprenticeship may visit a local advisory centre for young people (PAIO), the local office of the national careers guidance organisation (ONISEP), the local Chamber of Commerce (representing local employers offering apprenticeships), or the local Centre for Apprenticeship Training (CFA). On the Internet, a rich range of well-presented information is available.

Apprenticeship has been characterised as a public-private partnership



For example http://www.apprentissage-paca.tm.fr/ is a site provided by the Regional government of the Provence-Alpes-Cote d'Azur Region. Regional governments now have much of the responsibility for promoting apprenticeship in France and the web site given above provides step-by-step information for employers and young people in the region. The official site http://www.cidj.asso.fr provides detailed descriptions of a wide range of recognised occupations, associated qualifications and ways of studying for them, including apprenticeship. The aspiring apprentice is encouraged to seek out an employer willing to take on an apprentice. The steps to be taken to enter apprenticeship are quite challenging and set out on the web page of eg http://apprentissage-paca.tm.fr without many concessions to youth and inexperience.

In The Netherlands, students look for apprenticeship places themselves, mostly with the support of colleges. Apprenticeship places must be accredited by the national sector bodies for vocational education and training. Information about apprenticeship places is available from the Internet (www.edugate.nl) or from the sites of the national bodies (www.colo.nl). The national sector bodies have the task of ensuring that sufficient companies and organisations are in place so as to be able to provide the necessary number of training places. The national bodies also ensure that quality of on-the-job and off-the-job vocational practice complies with the quality standards set for each sector. In The Netherlands some 150,000 active training companies are recruited and registered as apprentice companies. In order to be legally enforceable, the apprenticeship contract must be signed by the student, the school, the apprentice company and the national sector body.

In Britain, there is no systematic provision for introducing students in schools and colleges to career opportunities offered by apprenticeship. Furthermore, there is no website available at national, regional or local level which provides comprehensive information on apprenticeship by occupation or sector, together with links to sites giving details of employers offering apprenticeships or to other ways of accessing provision.

While a small minority of apprentices in Britain enter apprenticeship by applying directly to an employer, for example in answer to an advertisement, most are channelled through local Learning and Skills Councils (LSCs) (formerly Training and Enterprise Councils) and are directed to a "training provider". In England alone,

there are some 1,330 training providers. Of these, just under 20% are employers. About 30% are private companies and a further 20% are Further Education Colleges. The remainder are Chambers of Commerce, Group Training Associations, local authorities and not-for-profit providers. Only around 5% of all apprentices are directly recruited and trained by employers. The remainder are the responsibility of the training provider, who contracts with the LSC to find an employer willing to take the young person. Frequently, most of the training and assessment is carried out by the provider rather than by the employer where the apprentice is based.

The process of employing an apprentice differs from country to country. In the three German-speaking countries, employers will either have had personal experience of being an apprentice and will almost certainly have a substantial number of employees who have obtained an apprenticeship certificate. Especially in Germany, such employers will not be confined to the smaller artisan-type firms. Apprenticeship, followed by full-time technical study, is a recognised route into management in Germany.

In France, although apprenticeship is largely provided by the private sector, it is nevertheless heavily regulated by French law. The procedure that a French employer must follow to take on an apprentice (set out with great clarity on the *apprentissage-paca* website) is not for the faint-hearted. However, French employers are used to detailed legal regulation of employment relations and it is possible that the requirements seem to them less daunting than they might to a British counterpart. As in Germany, the local Chamber of Commerce and the local *Centre de Formation des Apprentis* (CFA) help to put employers in touch with young people seeking an apprenticeship.

In The Netherlands, in order to train an apprentice, a company must be assessed and accredited by the appropriate national sector body. It must be sure that the apprentice will carry out appropriate tasks, that the company is providing a trainer/supervisor for the student and allowing the necessary time and facilities. If a student cannot personally find an apprenticeship place, the vocational college involved must do so.

In Britain, the complexities of the funding regime associated with apprenticeship are widely recognised as being too complex for most employers to manage. Training providers have filled the gap. However, they are in turn driven by funding incentives that derive from government targets for numbers of young people placed in government-supported training. Depending on the particular funding regime adopted by each TEC, funding may bias training towards low-cost provision, which does not necessarily correspond to local skill need. Once the government targets have been met (and funding committed), additional employers wishing to take on an apprentice have been refused adequate funding.

How do incentives to enter apprenticeship compare? The German system attracts young people by a combination of negative and positive incentives. Similar incentive structures pertain in the other German-speaking countries. There are no absolute barriers to the employment of unqualified school leavers in Germany, but firms are barred from employing people under 18 in the wide range of occupations for which an apprenticeship programme exists. Effectively, employment opportunities for under-18s are limited to unskilled occupations. As a result only about 1 or 2% of the cohort is in employment at age 16 or 17. Given the attractive range of occupational training open to young people, this means that the youth labour market is of limited attraction to school leavers. A second negative incentive is the length of university degree courses and their high dropout rate, which deter some of the more academic students from applying to university and cause them to choose apprenticeship instead.

Even more important is the recognition accorded to the apprenticeship qualification. Whatever the occupation, a completed apprenticeship confers a professional identity and consequent social status. Many collective agreements confine access to technician and *Meister* status to those who have completed the relevant apprenticeship. In the *Handwerk* (artisan) sector, the apprenticeship certificate is a necessary condition for independent practice and apprenticeship followed by a period of full-time professional education is a recognised route to management in many

On the Continent, the Internet now provides additional high quality information on careers

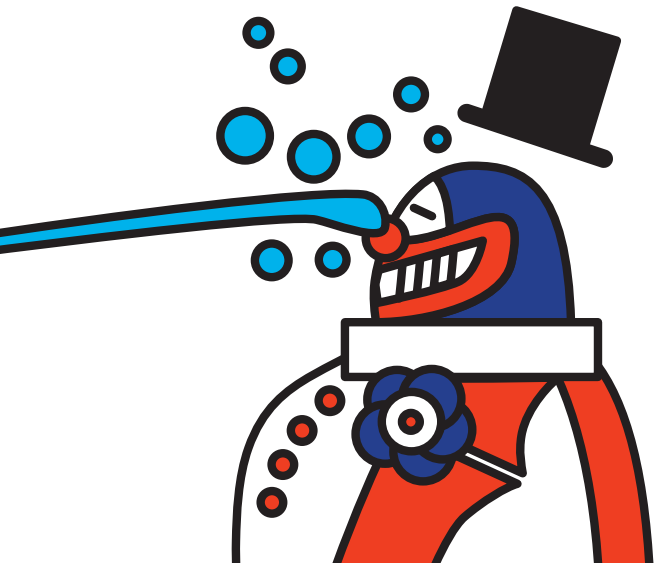
industries. But the social and career recognition of the apprentice depend on the passing of the final examinations.

The combination of these negative and positive incentives explains why nearly two thirds of young Germans enter apprenticeship. A substantial proportion of all those with school leaving qualifications equivalent to 5 GCSE Grades A-C (*Realschulabschluss*) choose apprenticeship in Germany, whereas in the UK most of their counterparts would normally aim for university entrance.

The negative incentives arising from the strict German labour market regulation relating to occupational qualification are not present in Denmark, France and The Netherlands to the same extent. University courses, while longer than in the UK, are not as long as in Germany. Furthermore, a more developed full-time route to vocational qualifications at Levels 3/4 exists in these countries (and, to a lesser extent in Austria), which restricts the range of occupations for which apprenticeship can prepare. In all these countries efforts have been made to improve the attractiveness of apprenticeship to more academically able students by improving links and bridges to the range of qualifications available from full-time education.

In France, state regulations have always prescribed that apprentices must study for nationally recognised vocational qualifications that are the same as those awarded in full-time education. While the proportion of those getting higher levels qualifications through apprenticeship remains relatively small, it has undoubtedly contributed to the recent strong growth in apprenticeship numbers and done much to raise its status.

In Denmark, apprenticeship programmes have been modularised and the "catalogue" of available courses aligned with those in adult education. Programmes have been individualised to make them more attractive and to reduce dropout. Thus students can now complete study programmes over variable time periods within set minima and maxima. Higher level vocational courses provided within the framework of higher education are specifically tailored for graduates from apprenticeship.



In The Netherlands, students on vocational courses study for the same vocational qualification, whether on apprenticeship or on full-time courses. Substantial amounts of work-based training are required for both full-time students and for apprentices. Switching between apprenticeship and the full-time route is, therefore, easier. The clear formulation of levels of training (see Table 2) also allows those on the apprenticeship route to continue subsequently to a higher level of qualification (either via apprenticeship or the full-time route). Perhaps for these reasons The Netherlands has a particularly high proportion of mature entrants to apprenticeship. In 1998 only 37% of apprentices were between 15 and 19 years old, 47 % were aged between 19 and 27, 12% between 28 and 40 and 4% were over 40.

ar from being improved, in Britain the incentives to follow apprenticeship programmes have been reduced. One of the main attractions of apprenticeship to young people – the ability to "earn while you learn" – has been undermined by the progressive introduction of the Educational Maintenance Allowance for young people in full-time education. The initiative to establish a technical certificate as part of the apprenticeship qualification was floated without much thought for how it might promote progression to proposed new degree level qualifications (Foundation Degrees). At the same time, the pool of well-qualified (5 or more GCSEs Grades A-C) potential applicants for apprenticeship has been drained by the rapid expansion of places in higher education.

Hilary Steedman is a Senior Research Fellow at the CEP. This article is based on her paper "Benchmarking Apprenticeship: UK and Continental Europe Compared" as part of the Centre's Skills for All Programme (Discussion Paper 513)

References & further reading

CBI (2000), *The CBI's response to the Modern Apprenticeships Consultation Document*, Confederation of British Industry, CentrePoint, London.

Coleman, N. and Williams, J. (1998), *Evaluation of Modern Apprenticeships: 1998 Survey of Young People*, DfEE Research Report 93, London.

Fuller, A. and Unwin, L. (2001), *From Cordwainers to Customer Service: the Changing Relationship Between Apprentices, Employers and Communities in England*, SKOPE Discussion Paper, Oxford and Warwick Universities, ISSN 1466-1535.

OECD (2000), *From Initial Education to Working Life: Making Transitions Work* OECD, Paris.

Payne, J. (2000), *Student Success Rates in Post-16 Qualifications: Data from the England and Wales Youth Cohort Study*, DfEE Research Report No. 272.

Richardson, W. (1998), *Work-Based Learning for Young People: National Policy, 1994-1997*, Journal of Vocational Education and Training, Vol. 50, No.2.

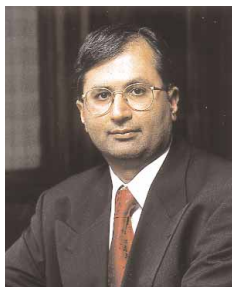
Training Standards Council (2000), *Modern Apprenticeships: A Survey Report by the Training Standards Council*, Oxford

In the

by Dr Sushil Wadhwani

long term...

Did the dramatic falls in equity prices in 2001 herald the start of a new bull market? Sushil Wadhwani looks at past evidence and finds that expectations remain high by historic standards.



All the world's major equity markets are now above the levels at which they stood before the tragic events of September 11 last year. They seem to be reflecting the consensus forecast that an economic recovery will begin in the United States by the middle of 2002.

Despite a succession of surveys in the second half of 2001, which suggested a significant weakening of confidence in the future in both the US and in Europe, and despite September 11 and its consequences, the markets appear to be willing to "look through" the valley in earnings associated with recent economic weakness to the sunlit uplands that are expected to result from the significant monetary and fiscal stimulus that has been injected. Traditionally, stock markets bottom before recessions end, so it is not that unusual to have weak business confidence and stock market rallies co-existing. The key question, though, is whether the markets are right to expect an economic recovery in the US by then.

The equity markets appear to be relying on a significant recovery in profits this year. For example, the Institutional Brokers' Estimate System (IBES) consensus is for a 14.4% increase in operating earnings by 2002. Not only is this forecast dependent on an economic recovery, but it also assumes that profits will rise significantly faster than GDP. Yet firms have little power to raise prices as capacity utilisation is at an 18-year low and nominal GDP growth has slowed to just under 2% per year. On the other hand, unemployment is still low by long-term historical standards and workers appear to be able to secure real wage increases significantly in excess of productivity growth. This implies a squeeze on profitability, because firms are likely to respond by scaling back on their investment and employment plans, which could then feed back into consumption.

Figure 1 US and Euro Area Manufacturing Prices

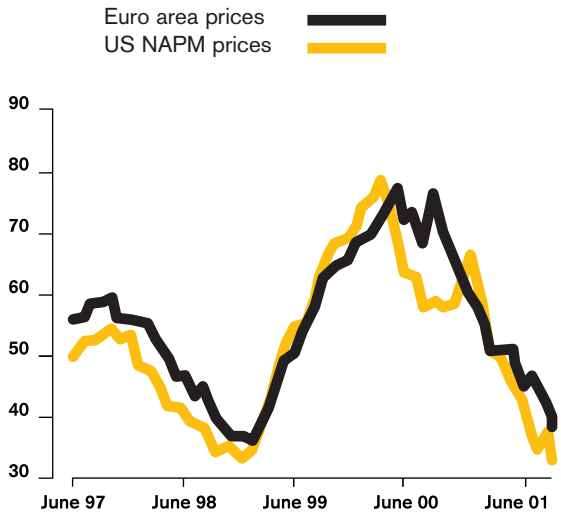
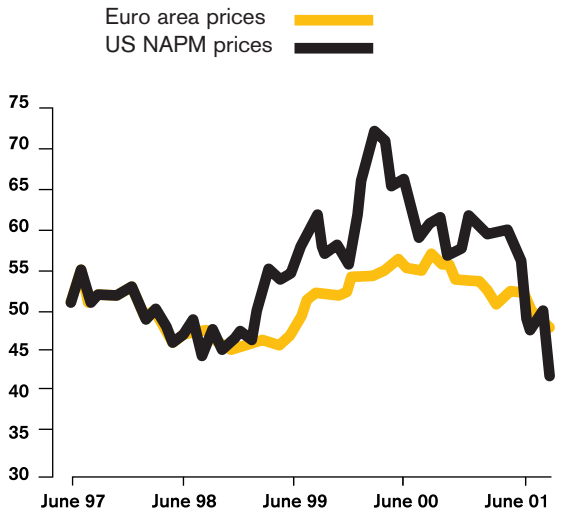


Figure 2 US and Euro Area Non-Manufacturing Prices



The market is still trading at a relatively high multiple of earnings

Figures 1 and 2 display the responses to questions on pricing embedded in recent Purchasing Managers' Index (PMI) surveys. They point to inflation pressures being extremely low. (NB on the right-hand scale 50 reflects the "no change" level.) Both manufacturing and services are now in deflation territory. Note also that the price of oil and industrial metals fell by around 20% last year. In addition, capacity utilisation in the US and Japan has not been lower since the early 1980s. For all these reasons, it is likely that global inflation will remain low over the next year or so.

Against this background, the key question is whether current stock market valuations pose a risk to the global economy. Global stock markets have fallen significantly since their peaks in 2000. Table 1 shows that the declines in the major equity indices from their peak values have ranged from over 20% for the FTSE100 to around 60% for the NASDAQ. It is, therefore, tempting to believe that stock markets are now more likely to rise than fall again.

Normally, the bottoms of bear markets are associated with clear signs of the purging of the excesses that built up during the euphoria associated with the preceding bull market. However, Figure 3 shows that the current price/earnings ratio for the S&P500 index in the US remains high by long-term historical standards. While it is true that current earnings are at cyclically depressed levels, Figure 4 (computed using a 10-year moving average of past earnings) suggests that the market is still trading at a relatively high multiple of earnings. These high absolute valuations have led some commentators to argue that the US stock market is still vulnerable to a further significant decline. If they are right, this could have an important impact on global growth.

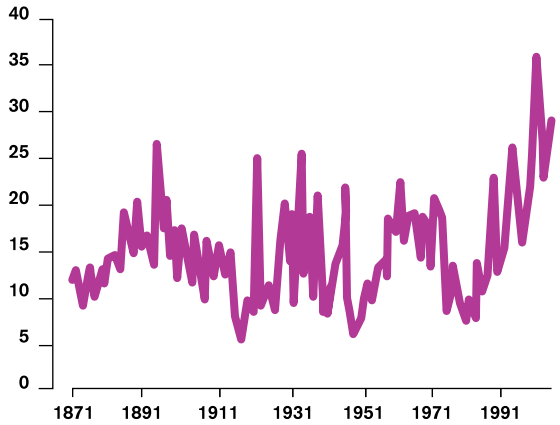
It must be noted that P/E ratios have been high by historical standards for some years. Several Wall Street strategists have argued that these higher levels have been appropriate because interest rates and inflation have been low, so that holding equities has become less risky. So let us look further into this equity valuation debate.

Consider a simple valuation model for stock prices

$$DY+g = r+rp$$

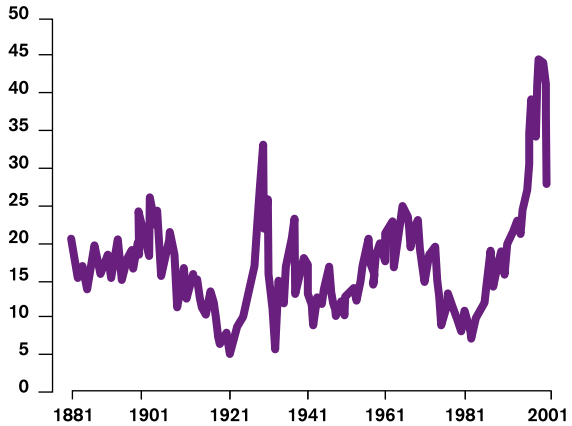
where DY = dividend yield, g = expected long-term, real growth rate of dividends, r = real interest rate, and rp =

Figure 3 S&P500 Price-Earnings Ratio (Trailing Earnings)



Source: Shiller dataset for 1871-1968, thereafter S&P Composite P/E ratio

Figure 4 S&P500 Price-Earnings Ratio (Ten Year Average of Earnings)

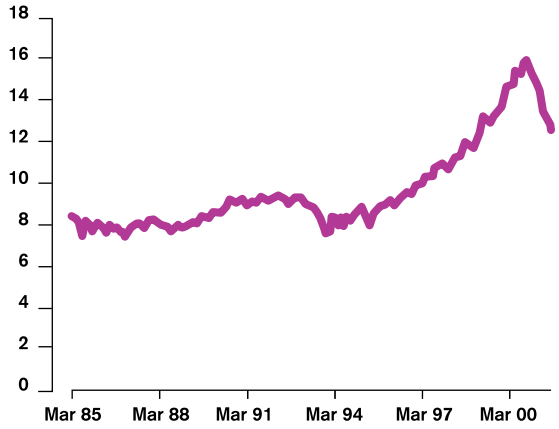


Source: Shiller dataset for 1871- early 2001

Table 1 Stock Market performance since the peak

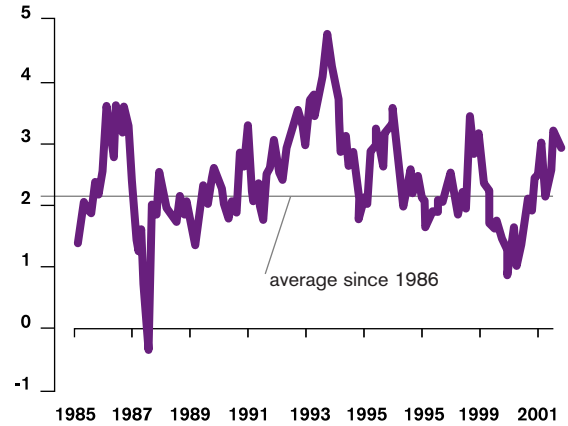
	FTSE100	S&P500	DAX	CAC	NIKKEI	NASDAQ	EUROSTOXX
Peak	6930.2	1527.5	8046.0	6922.3	50833.2	5048.6	466.2
15 Nov 2001	5238.2	1142.2	5006.3	4577.3	10489.9	1900.6	307.5
% change	–24.4	–25.2	–37.8	–33.9	–49.6	–62.4	–34.0

Figure 5 Consensus expectations of S&P500 Real Earnings Growth



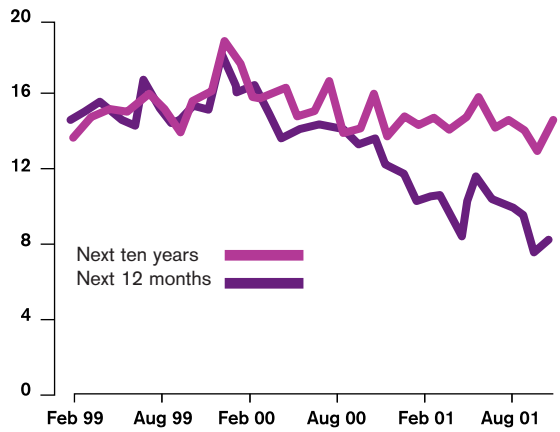
Note: IBES nominal earnings expectations deflated by University of Michigan survey based on 5-10 year inflation expectations.

Figure 6 Implied ERP*



* Computed using 3 stage Dividend Discount Model based on long-term earnings expectations.

Figure 7 UBS Paine Webber/Gallup Survey of Expected Returns



equity risk premium. (This is known in the literature as Gordon's (1962) growth model and is just a steady-state version of the dividend discount model.)

In the US last November, when the S&P500 index was 1142, DY was 1.4% and r was 3.3% (i.e. the yield on US Treasury Inflation-Protected Securities). We can initially assume that g was 2%, which is approximately equal to the long-term average growth rate of real dividends in the US from 1926 to 2000. These figures yield an estimate of the equity risk premium (ERP) of 0.1%, which is extraordinarily low by long-term historical standards. The actual ERP between 1926 and 2000 was about 7% and some calculations of the ex ante estimates of ERP for the same period suggest a value of around 4%. It is a widely held view that the appropriate level of the ERP has fallen since World War II and some estimates of the ex ante risk premium suggest that it has averaged around 2.4% since 1965. However, even if one just assumed that the ERP needed to rise from its present level to 2.4%, that would imply that the dividend yield would have to jump from 1.4% to 3.7%, which in turn would imply a very significant decline in the S&P500, indeed to around 430! Fortunately, the above analysis needs to be qualified.

There is significant variation in the rate of productivity growth over time, i.e. although the long-term growth rate of labour productivity in the US is about 2% a year, there have been significant periods when actual productivity growth has been maintained at a rather higher level. For example, it averaged nearly 3% a year from 1948 to 1973 and just under 4% from 1917 to 1927. Given that US productivity growth appears to have accelerated in the mid-1990s, it is reasonable when valuing stocks to allow now for at least a period of above-average dividend growth. Here it is to be noted that analysts had become significantly more optimistic about medium-term earnings growth prospects during the last two decades. Figure 5 displays the consensus forecast for real earnings growth three to five years ahead. This rose from around 8% a year in the mid-1980s to a peak of almost 16% a year in 2000, though it has fallen back to around 12% a year now.

If one assumes that the longer-term earnings growth forecasts are an accurate guide for the next four years and that the economic growth rate will gradually diminish towards its long-term average of 2% a year over, say, an eight-year period, then the implied ERP today is around 2.7% (see Figure 6). (Incidentally, for the period where such data on long-term earnings expectations have been available, there is a no evidence of these expectations being biased. This is in contrast to the data on expectations of earnings one year ahead, where analysts appear to have been over-optimistic.)

This kind of calculation actually makes the US stock market today look undervalued. Achieving an ex ante risk premium of 2.4% on this basis would imply a rise in the S&P500

In the long term, earnings growth must match GDP growth

index to around 1285. In fact, the post-1985 average for the implied ERP is even lower (2.1%), which would support an even higher implied value for the S&P500.

At first sight, one might take some comfort from the fact that the ERP appears to have risen from around 0.5% at the market peak in 2000 (see Figure 6) to a value above its post-1985 average. However, in the last long bull market investors increased their expectations of equity returns. It is important that investor expectations for returns on the stock market should be consistent with the ERP. Specifically, with long-term bond yields of around 4.75%, an ERP of 2.5% implies a long-term return on equities of 7.25% a year. This level of return is, though, considerably lower than what investors say they expect to earn.

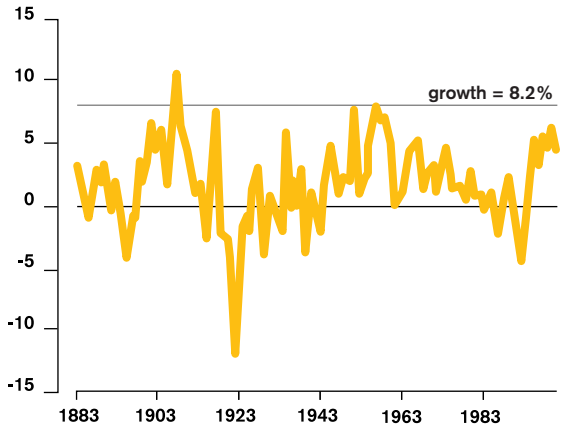
Specifically, the UBS Paine Webber/Gallup poll of investor attitudes asks individuals to forecast the annual rate of return on the stock market over the next 10 years. The October 2001 survey suggested an expected annual return of around 15%! Figure 7 shows that the expected return has fallen a little (it was as high as 19% a year in December 1999), but it remains more than twice as high as is implied by the current constellation of interest rates, ERP and expectations of earnings growth. The mismatch between what the stock market is likely to deliver and what individual US investors expect is a potential source of concern about the medium-term viability of existing valuations.

Of course, the recent bear market has had some impact on expected returns. In the last two years, while expected returns one year ahead have fallen significantly, 10-year forecasts have moved relatively little (see Figure 7). Individual investors appear to believe that the current bear market is only going to have a relatively temporary effect on the path of equity returns. Their longer-term expectations for returns are still extraordinarily high by historic standards.

A related concern about possibly over-exuberant expectations is associated with the fact that analysts still expect earnings growth over the next four years to average almost 15% a year in nominal terms, or around 12% in real terms. In the long term, earnings growth must match GDP growth and not even the most ardent advocate of the New Economy in the US believes that the economy is likely to grow faster than 4% a year. Since 1875, a rate of real earnings growth of 12% a year over a four-year period has been exceeded only about 10% of the time. Hence, the next four years would have to be unusually good in terms of corporate earnings growth in order to match the expectations of analysts.

While this is possible, it is not particularly reassuring that the current optimism of stock market pundits is predicated on such a rare level of growth. Further, the 2.7% estimate of the current ERP is based on a three-stage dividend discount model, where real earnings growth only falls from its elevated level gradually over the next four years. I have

Figure 8 Real Earnings Growth
(12 year Average Growth Rate)



implicitly assumed an average growth rate of real earnings of around 8.2% a year over the next 12 years. Yet, as Figure 8 shows, this has been a very unusual event during the last 125 years. To be precise, this rate of earnings growth has only been exceeded about 1% of the time.

Thus, although global stock markets fell significantly from the peaks of 2000, it is not as yet possible to assert that all the previous "excesses" have been purged. However, if clear signs of an economic recovery do emerge, none of these "excesses" are necessarily inconsistent with a significant move up in equity prices in the short term. It behoves us to recall that equities rallied by almost 60% in the 17 months following the lows reached in October 1998, even though levels of the ERP and long-term earnings expectations were not significantly different from today's. Valuation considerations only matter on a longer-term basis. An economic recovery producing a significant bounce in profits and share prices is unlikely to lead anyone to question their current, longer-term expectations about earnings and equity returns.

If, on the other hand and for whatever reason, the recovery is delayed, then we might see an adjustment as investors come to re-evaluate their expectations about longer-term earnings growth and returns and this could have a significant impact on the outlook for growth and inflation.

So far as forecasting inflation in the UK is concerned, we also face significant uncertainties in relationship to the supply potential of the economy. Most existing macroeconomic forecasting models produce forecasts of inflation that depend on some assessment of demand pressures relative to supply potential. In practice, however, assessing the true degree of supply potential is very hard. We have had to make some difficult judgments about, among other things, the level of spare capacity and the degree of

competitive pressure. One way of assessing whether our assumptions about these key, but hard-to-measure, variables are appropriate is to look at the performance of the equation that helps predict prices that is embedded in the Bank of England's Medium-Term Macro-econometric Model (MTMM).

There has been a tendency since about 1998 for actual prices to turn out to be below what the MTMM equation predicted. These errors have been both economically and statistically significant. Much of the "art" of forecasting lies in the judgments that are made. Different assumptions about whether or not these post-1998 errors would persist can have a large effect on the inflation forecast. If one assumes that they are relatively transient, then the forecast would tend to follow the prediction produced by the equation. If, instead, one felt that the factors that explain these errors were likely to endure, then this could lead to a significantly different inflation forecast.

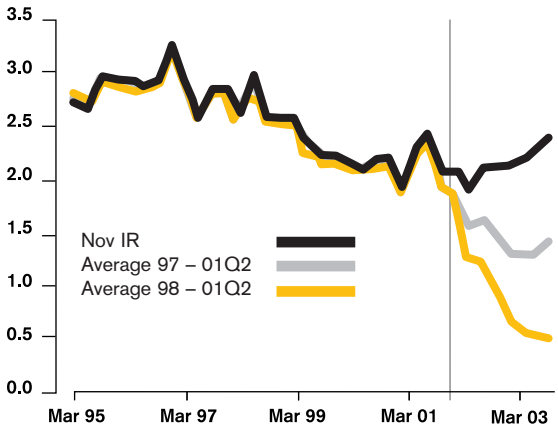
In deciding what assumptions are appropriate, we have to take into account the upward revisions to the historical capital stock data that were unveiled by the Office of National Statistics (ONS) in September 2001. The new measure of the capital stock had a significant effect on the MTMM measure of capacity utilisation.

This new measure has the inherent plausibility of being rather closer to the survey data and implies that we are operating below full capacity. The previous measure implied that we were operating above full capacity. The revised calculation of capacity utilisation has the considerable advantage that it reduces the size of the previous price forecasting errors. One is normally more confident about projecting the future when one understands the past better. Since this alternative explanation of past price forecasting errors is of a more enduring character, it has had the effect of reducing the medium-term inflation forecast produced mechanically by the model.

Moreover, even though the new capital stock data produce smaller forecast errors from the price equation, there is still some tendency to over-predict price inflation since 1998. And these forecasting errors are still economically significant. If, for example, we project into the future the average forecast error for inflation made over the post-1998 period, then in a mechanical sense Figure 9 shows that the implied path for inflation would have been quite different from what was published by the Bank of England in its November 2001 Inflation Report, with a difference in the inflation projection for two years ahead being much as 1.8 percentage points. Of course, fortunately, the published inflation forecast is not just based on an econometric model.

This suggests that there may still be important missing or poorly measured variables in the MTMM price equation. Candidate explanations include the possibility that the capital stock remains inadequately measured. We still need to investigate alternative conceptual measures of this stock. More generally, the evidence that prices have in fact been below what the equation predicts is consistent with the growth rate of potential output being higher than we have assumed.

Figure 9 Alternative 'Inflation Forcasts'



It is also the case that the equation does not currently allow the world price of competitor goods to influence domestic pricing and, thereby, potentially fails to pick up any effects from the intensification of competitive pressure that has occurred as the ratio of world prices to domestic prices has fallen in recent years. (There is survey evidence that an intensification of competitive pressures since mid-1997 has been perceived to have had an important effect on profitability.)

It may be that we need to revisit the conceptual measure of capacity utilisation that is used in the model. In any case, while there are considerable uncertainties, my personal judgment is that the current published best collective projection for the UK economy is systematically overstating the degree of inflationary pressure, though only by around 0.5%.

Dr Sushil Wadhwani is a member of the Monetary Policy Committee of the Bank of England and a Visiting Professor at the London School of Economics.

This article is an edited extract from a speech delivered to the Edinburgh University Economics Society on 21 November 2001.

by Stephen Wood, Lilian de Menezes and Ana Lasaosa

Quality time

Stephen Wood, Lilian de Menezes and Ana Lasaosa examine evidence on the impact of High Involvement Management and conclude that with it employers can raise the rate of productivity growth and simultaneously achieve high levels of both quality and productivity.

"Good people management costs no more than bad people management. It is an idea whose time has finally come", wrote the journalist Simon Cauklin in People Management last August.

This judgement is based on an assumption that human capital is now central to competitive advantage. It is founded on a spate of recent studies, both in the US and the UK, showing a positive relationship between sophisticated human resource management and corporate performance. This benevolent system is being labelled "high performance management".

An earlier article by one of us ("Putting the cart before the horse: how can we be sure about the management revolution?", *CentrePiece* Spring 2000) questioned whether the claims for this research and the coining of a new label were justified. It particularly noted that there were many strands to the argument and that there was great diversity within the research. Subsequently, using the 1998 UK's Workplace Employment Relations Survey (WERS98), we have been able to test many of these diverse arguments. The results suggest that some of the scepticism is justified. However, they support a key feature of one of the strands – that a core set of "high involvement" practices concerned with changing the way people work are being used in concert. This reflects an orientation on the part of management towards involving and developing the workforce. Moreover, this high involvement management does have an effect on a key performance variable, the rate of productivity change. Organisations that practise high involvement management are also more likely to deliver both high quality and high productivity.

Others have also been uneasy with the elevation of human resource management (HRM) to the status of *the* key to high performance. First, there are those who question the very idea of a "best way" of managing people that can fit all contexts. Second, there are those who point out that a strategic and employee-centred approach to human capital management conflicts with the short-term financial criteria that stock markets bring to bear on managements, particularly in an Anglo-Saxon context. Third, there are those who think that HRM generates profitability not because it is a benevolent form of management but because it is just another means of making workers work harder.

Our scepticism, however, is directed more at the claims that there is sufficient uniformity in the studies to justify the high performance management label. First, the nature of what is taken to be the good HRM varies between studies and is often not clearly identified in them. Second, the results of the performance effects of HRM (however conceived and measured) are neither as clear-cut nor as uniform as some have concluded. Even within studies, there is often unevenness in the results as between

different performance measures. While some results point to universal effects, others do not.

There are common starting points in the research. The first is the notion, implied by the term HRM, that employees should be considered as a resource rather than a cost. The second is the emphasis on HRM practices designed to enhance the involvement of employees in their work in the belief that they harness people's energies and commitment towards organisational goals. (Various terms were coined for this perspective, including high involvement, high commitment and, most recently, high performance management.) The third is the contrast between high involvement management and the style of human resource management based on narrow and tightly specified job definitions. To illustrate the difference, high involvement management assumes that gains will accrue from investment in training and development, rather than from limiting training costs to meet immediate needs, as in the control model; from empowering employees (through enrichment, introducing self-managing teams and encouraging subordinate participation), rather than from simplifying and closely specifying job requirements; and from ensuring good communications up and down the organisation, rather than from limiting information to a need-to-know basis.

Yet beneath these common elements in the research there are differences. The most pronounced is between a focus on sophisticated personnel management practices and on a more specific high involvement management, the core of which is changes in job design. These two approaches overlap, because personnel management includes work organisation practices, which in turn entail the use of personnel policies for their success. But they imply quite different notions of the high performance human resource system.

The first notion treats it as the set of best practices for each area of personnel management. The second implies that it pivots on a set of practices, designed to encourage all employees to work flexibly and creatively: for example, functional flexibility, team working, quality circles and suggestion schemes. From the "best practice" perspective, the greater the number of the best practices used in the organisation the greater will be its performance. The issue then is whether each practice has an equal effect, or whether the effect of all or some is dependent on the existence of others. For example, will the effect of sophisticated selection processes be minimal if, once in the organisation, employees are then managed with practices that are not state of the art? Or is the main effect of a good selection process that it produces a workforce so committed and skilled that it is unaffected by other less good management practices?

A secondary issue is whether the effect of these good practices is dependent on the extent to which an organisation has a strategic approach to personnel. Is the effect of sophisticated personnel practices limited, if they are not underpinned by a strong personnel function, where human resource management is accorded a key role in determining the overall strategy of the firm and is integrated with day-to-day line management?

In the other high involvement management perspective, the key is a set of core (work design) practices. However, as their design and concerted use is evidence of an underlying management orientation in favour of involving and developing their workforce, that in itself becomes part of the equation. The issue then is the extent to which the performance effects of this core are dependent for their maximum impact on the existence of supporting personnel and employment practices. A secondary issue here is whether the successful adoption of HIM depends on the use of practices associated with total quality management or what is know as "lean production".

The two perspectives also have differing implications for research design. Under the best practice approach, practices are defined on the basis of leading edge theory and/or empirical investigation of their effects. The extent to which (and in what way) this bundle effects performance can then to be tested empirically. Typically, this has involved correlating the number of practices used with various performance outcomes. This assumes that the effects of practices are equal and, in combination, additive. Other tests can then be conducted to see if the picture is more complicated, i.e. to discover whether practices are mutually reinforcing, or whether the effects of individual practices used alone are limited or even negative.

Research into the high involvement perspective requires, first, an empirical investigation of the practices involved to assess whether they are in fact used in concert and whether their use is indicative of an underlying management orientation. Then, if their use is found to be systematic, measures of that usage or of the underlying orientation can be correlated with performance to see if they are linked. Co-existence of practices is crucial here. For, without it, high involvement management is not a meaningful concept in practice. It remains simply a part of the discourse of management thought, not of reality: the practices are simply being used in an ad hoc way.

Our research has concentrated on the second perspective. Its starting point is the following conception of high involvement management:

- it is a task-centred approach to participation
- it involves (a) the combined use of managerial practices, such as quality circles, job flexibility, and team working and (b) an orientation on the part of employers to develop and harness the human capital of the organisation
- at its core are task-level practices, i.e. methods for working flexibly and producing innovations
- it involves two types of support practices: (a)

Team working

Continuous improvement team

Job flexibilty

individual supports, through which individuals are given training and information to engage successfully in such practices; and (b) organisational-level supports – practices, such as minimal status differences and job security, which are directed at the recruitment and retention of people able to work in a high involvement manner

- if successful, it should result in employees being flexible, expansive in their perceptions and willing to contribute proactively to innovation
- it should thus have its most telling effect on rates of productivity growth and in ensuring the simultaneous achievement of high quality and high productivity.

Our research strategy has differentiated between examining the nature of HR practice and examining its effects on performance. (Previous research has concentrated on effects.) More specifically, it has involved two elements:

(1) a detailed examination of the relationship amongst practices associated with high involvement management, total quality management and the strategic approach to HRM; and

(2) an assessment of the performance effects of these practices (with the results from (1) dictating how these practices are conceived and measured).

Table 1 Distribution of HI management practices

	%
Team working	63
Functional flexibility	47
Quality circles	47
Suggestions scheme	34
Team briefing	83
Induction	79
Training for HR skills	45
Information disclosure	83
Appraisal	54
Survey feedback	29
Internal recruitment	25
Motivation as selection citerion	88
Job guarantees	11
in status difference	57
Variable pay	34

Source: WERS98

The 1998 UK Workplace Employee Relations Survey, which we have used, is the fourth in a series of representative surveys of the UK economy. It has a greater coverage of human resource management issues than past surveys. Its virtue for our needs is that it contains measures of a comprehensive range of high involvement and total quality practices, as well as data on the strategic integration of personnel management.

The high involvement management practices in WERS98 can be classified according to our three types:

(1) task-oriented practices: team working, functional flexibility, quality circles and suggestion schemes;

(2) individual-level supports: team briefing, induction, training for human relations skills, information disclosure and appraisal;

(3) organisational-level supports: survey feedback, priority given to internal recruitment, motivation as a selection criterion, job security guarantees, minimal status differences and variable pay.

Our results show that

- of the core task, high involvement practices, team working is the most widespread (75%), followed by quality circles and continuous improvement teams (50%) and job flexibility (42%), with suggestion schemes coming last (37%)
- core high involvement practices are no more likely to be used in the private than the public sector
- core high involvement practices are systematically used together and supported by practices that equip employees to work in a participative way (measured in WERS98 by team briefing, induction, information disclosure, appraisal and training in group and interpersonal skills)
- high involvement management is not necessarily complemented by employment practices, such as job security guarantees, internal recruitment and single status, which are not as common as high involvement management

Information disclosure

- a philosophy of paying according to performance is not part of HIM, so performance-related pay systems (including employee share ownership and profit sharing) are not necessarily associated with high involvement management
- HIM is not part of a broader management concern with employees' well-being, as it is not associated with family-friendly or equal opportunity policies
- high involvement practices are used in conjunction with total quality or lean production practices, such as the measurement and monitoring of quality and customer requirements and complaints, training of employees in problem-solving, and self-inspection
- the popular association of high involvement management with high profile non-union firms, like IBM, is not supported by these data (in fact high involvement management is more likely in workplaces where trade unions are recognised).

More sophisticated statistical analysis of the variables involved allows us to point to other relationships:

- managements using core high involvement practices in a concerted way are orientated towards enhancing the involvement, development and contribution of their employees;
- the proportion of workplaces across the whole economy where managements have this high involvement orientation is 26% (with 24% having no such an orientation and the remainder being only partially concerned with involvement);
- 38% of the UK workforce works in high involvement workplaces and only 13% in "no involvement" workplaces;
- almost all managements with a high involvement orientation are also geared towards the achievement of high quality.
- such high involvement management is no more or less likely to be in the private than in the public sector;
- high involvement management is prevalent in large workplaces and is allied to workplaces where personnel management is integrated into the strategic planning and objective setting of the organisation.

From the data, the measurable effects of high involvement management are discernable:

- strong positive effects on the rate of reported productivity change (but not necessarily on the level of productivity, quality or financial performance, nor absenteeism and labour turnover);
- when allied with total quality management, it strengthens the relationship between quality and the level of productivity;
- organisations able to achieve high quality and high productivity are disproportionately those practising high involvement quality management ;
- the effects of High Involvement and Total Quality Management are not enhanced when internal recruitment is favoured, job guarantees are offered, or status differentials are minimised;
- the effects of High Involvement and Total Quality Management are not contingent on personnel management being strategically integrated, the product market being unstable, or trade unions being recognised.

Finally, we also analysed these practices as if they were "best practices", by aggregating undifferentiated sets of them. This analysis did not achieve the same telling performance results.

High Involvement Management is the foundation of human resource management in Britain. Being task-centred, it is a limited involvement. It clearly does not involve excessive job enrichment and workplace democracy, as some sceptics suppose. It is not based on Japanese-style employment practices, with a heavy use of internal recruitment, guarantees of job security and low status differentials between management and workers. Indeed, when HIM is associated with these characteristics, its effects on performance are not enhanced.

The high involvement management that we have analysed, focused as it is on encouraging employees to be flexible, expansive in their perceptions and willing contributors to innovation, is integral to the notion of partnership put forward by the Labour government and the TUC. The evidence here indicates that its real value is in raising productivity and overcoming the traditional conflict between high quality and high productivity that managers and trade unionists have faced in the past.

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References & further reading

Wood, S. & de Menezes, L. (1998), *High commitment management in the UK: Evidence from the Workplace Industrial Relations Survey and Employers' Manpower and Skills Practices Survey*, Human Relations, 51, 485-517.

Wood, S. (1999), *Getting the measure of the transformed high-performance organization*, British Journal of Industrial Relations, 37, 3, 391-417.

de Menezes, L., Wood, S, & Lasaosa, A. (2001), *The foundations of Human Resource Management in Britain: Evidence from the Workplace Employee Relations Survey of 1998*, mimeo, Institute of Work Psychology, University of Sheffield.

by Richard Layard

The status quo is not an option

With the Euro now a physical reality, Richard Layard argues that the economic case for Britain joining Euro-land is overwhelming.

There is only one economic reason to join the Euro – that it would give us greater prosperity. To prosper you need to belong to a large market, free of tariffs and non-tariff barriers and undisrupted by currency fluctuations. That is how the United States grew rich. Its huge market enabled firms to specialise and produce on a massive scale at low cost. At the same time the size of the market increased the competitive pressure on firms to be efficient and widened the range of suppliers from whom consumers could satisfy their needs.

In Europe, the Common Market, followed by the Single Market, has produced some of the same effects. But, as experience has shown, you cannot have a truly single market without a single currency. So the Euro is the coping stone of the Single Market programme, which Margaret Thatcher did so much to promote. And it is having its predicted effect. We are now seeing a major reorganisation of European industry and finance, achieving the economies of scale already seen in the USA.

It is easy to underestimate the impact of currencies upon economic life. If (like some monetarists) you believe that money is a veil, it is natural to believe that efficient markets can penetrate the veil. But businessmen know otherwise. If your costs are in sterling and your receipts in a foreign currency whose value fluctuates against sterling, you will be far more cautious about committing yourself to the foreign market.

A good example of how this works comes from Canada, which shares a common frontier and a common language with the USA but not a common currency. Canada trades far less with the USA than geography would lead one to expect. A Canadian province trades one sixteenth as much with a US state as it does with another Canadian province that is equidistant and of equal income. And, because Canada is so weakly integrated into the US market, its productivity is 20% lower than the USA's. Likewise, Britain's productivity per hour worked is 20% below that on the Continent north of the Alps. Among the reasons is our lesser integration into the large European market. That began with our late entry into the Common Market and it continues with our delayed entry into the Euro. After the War, European productivity per hour was way behind the US, but the Continent has now caught up with the US. Britain, however, lags and has grown no faster than the Continent over the last 20 years, despite our economic reforms.

The separate currency is a major reason for this and it will become even more damaging in the future. If you have a separate currency, its value will fluctuate. This creates uncertainty about the return to any long-term investment in export markets. The returns in the foreign currency are already uncertain and, since the currency risk cannot be hedged, this adds further to it. On top of this, currencies go through prolonged periods of misalignment, which are deeply damaging even when foreseen. The level of sterling over the last three years has been extremely harmful and is one reason why firms like BMW, Vauxhall and Corus are rebalancing their businesses away from Britain.

Such misalignments cannot be controlled. For, in the modem world of

The level of sterling over the last three years has been extremely harmful

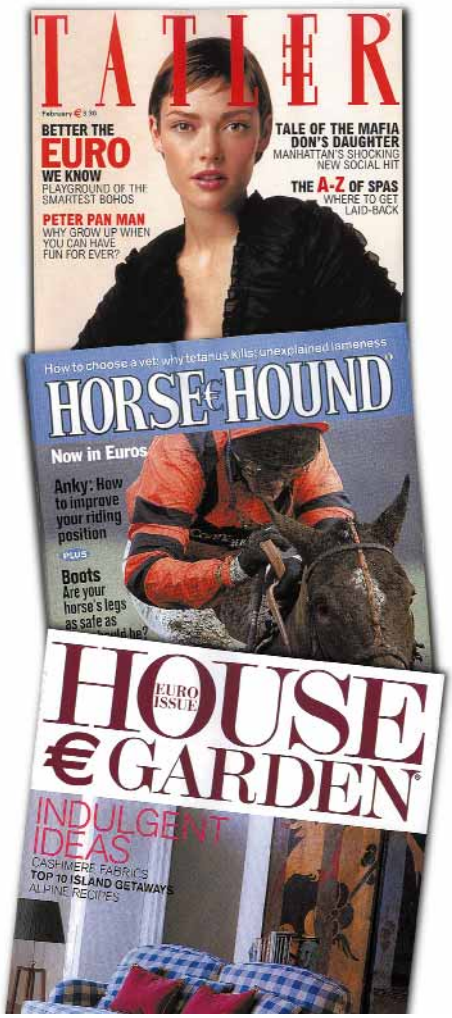
massive short-term capital flows, a floating exchange rate does not serve as a well balanced adjustment mechanism, as its advocates claim. Experience has shown that a floating exchange rate produces much more variation in competitiveness than occurred in the Bretton Woods period, when the exchange rate could be fixed. As capital becomes ever more mobile through electronically linked financial markets, the exchange rate is likely to fluctuate even more. The simplest remedy is to link ourselves to the currency of our closest trading partners.

The argument would be strong in any case, but it is even stronger when our partners have already linked themselves together. Before that happened, we were in the same position as any one of them. For example, a firm that sold into Germany faced exchange risk whether it produced in Holland, France, Italy or Britain. Now it faces no exchange risk if it produces in Holland, France, or Italy, but it does if it produces in Britain. So the longer we stay out of the Euro, the more firms are likely to move their business to the Continent. That is why so many businessmen are urging the government to join the Euro so that they do not have to face that agonising choice.

The key point is that, once the other countries have linked up, we are no longer in the same situation as before. We cannot choose the status quo ante. If we do not join, we are in a worse situation than before. So, even if we were happy with our previous situation, we cannot avoid a reassessment, now that the Euro exists.

These are the central economic arguments. But there is another indirect one. Our economy is strongly affected by what happens on the Continent – by its level of economic growth and by the regulations we face from Brussels through our membership of the EU. We want to be able to influence these. We can only influence growth in Europe by belonging to the European Central Bank, which sets interest rates on the Continent. And we can better influence European regulations if we belong to the committee of the Euro 12 (the countries that belong to the Euro). Increasingly, European business is done within that group and at present we are excluded from it.

That is the case in favour: to avoid currency fluctuations, we must adopt the single currency. But that also means accepting the single rate of interest on that currency. There lies the rub: we lose control over our own interest rates. So, if Britain faced a shock that affected it differently from other countries, it could not use monetary policy to offset it. This is the problem of "one size does not fit all" and it is a serious disadvantage.



However, the same problem occurs in the United States. If one region is hit by an adverse shock, the Federal Reserve can do little to help. Yet no one has proposed having separate currencies for different parts of the US.

So should Britain be as happy to use the Euro as California is to use the dollar? In this situation Britain's main drawback is that there is much less labour mobility between Britain and the Continent than there is between California and the rest of the US. Thus an adverse shock to Britain would be harder to offset by an exodus of population.

But there is also, of course, very low net movement of labour within Britain. Yet no one seriously advocates a separate currency for the North-East of England. Moreover, Britain has one key advantage that California has not. We have the freedom to run a budget deficit. Though in the Euro we lose our monetary weapon of stabilisation, we still have our fiscal weapon. US states have no such weapon, since most of them have to balance their budgets year by year. Thus, from the fiscal point of view, a European country is better placed than a US state.

The opposite is often alleged. It is said that California is better off than Britain would be because, when California's economy plunges, it gets an automatic transfer from the federal budget in Washington. By contrast, Britain would get no such transfer from Brussels. However, Britain does not need such a transfer, because it has the automatic stabilisers within its own budget. These are stronger than those in the US and Britain can, if it chooses, use discretionary fiscal change on top of this to offset a recession.

From a fiscal point of view, a European country is better placed than a US state

There is one other point. The California economy is very different from the average of the US economy. It is highly exposed to idiosyncratic shocks, which the Federal Reserve will not offset. By contrast, the economy of Britain is more similar to the overall economy of Europe than the typical US state is to the overall economy of the United States. So situations where our interests diverge from those of Europe as a whole should be relatively rare.

We must of course join the Euro at a time when our economy is at a similar cyclical position point to the European economy – i.e. when we would like to have similar interest rates. Sometime in the next two to three years looks ideal. But there are bound to be times thereafter when British and European interests diverge. That is the cost of joining in return for the greater benefits of currency stability.

Let me end by reviewing some of the less respectable arguments against joining. First, there is the argument that we should join the large American market rather than the large European one. In other words, join the North American Free Trade Area (NAFTA), not the Euro. This is absurd. For powerful economic reasons, over 50% of our trade is with the EU and only 16% with the US. These powerful forces cannot be bucked. Nor would the rules allow us to join NAFTA and remain in the EU.

Second, there is the argument that Europe is failing, so we should stay at arms length. Europe has indeed one serious weakness. France, Spain, Italy and Germany all have higher unemployment than we do. While some of the difference is cyclical, an important part is due to dysfunctional benefit systems and rigid wage structures, which need to be changed. But joining the Euro does not mean that we have to copy these countries. Within the British single currency area, the South-East has one third the unemployment of the North-East. In other words, the South-East has not imported the unemployment rate of the North-East. Within any single currency area there will always be local variations, but these are no reason to break up the Union.

Third comes the argument that the Euro would be a re-run of the Exchange Rate Mechanism (ERM). On the contrary. The ERM was an ill-fated attempt to peg a separate currency to other currencies. The Euro is a decision to merge the currencies so that exchange rates no longer exist between them.

Fourth, perhaps the most strident argument used against the Euro is that it is the thin end of the wedge on the route to a federal Europe in which we shall be forced to harmonise taxes and many other institutions where we prefer our own variant. There is in fact no such implication. The Euro is a self-contained arrangement concerning currencies. Britain can continue to veto tax harmonisation and most other changes we dislike. This is governed by the treaties we have signed, quite irrespective of whether we belong to the Euro or not. However, if we do belong to the inner club of Europe, it will in fact be easier rather than harder for us to resist pressures of the kind we disapprove of.

Finally, there is a common view that, while we would be better off inside the single currency, it is so difficult to manage the transition that we should not try. There are of course formidable political difficulties in persuading the British people. But it can be done. In the 1975 Common Market referendum 55% of voters were against membership six months before the referendum, but only 33% were against it on the day.* This time, the key conditions for success will be strong business support (which requires a reasonable exchange rate) and a popular government arguing clearly for a yes vote in a referendum. If these are in place, Britain will join the Euro sooner than many people expect.

Richard Layard is Director of the CEP.

For a fuller presentation of the case for Britain joining the Euro, see R. Layard et al, *The Case for the Euro*, Britain in Europe, 2000

* Robert M. Worcester, *How to win the Euro referendum*, Foreign Policy Centre, 2000

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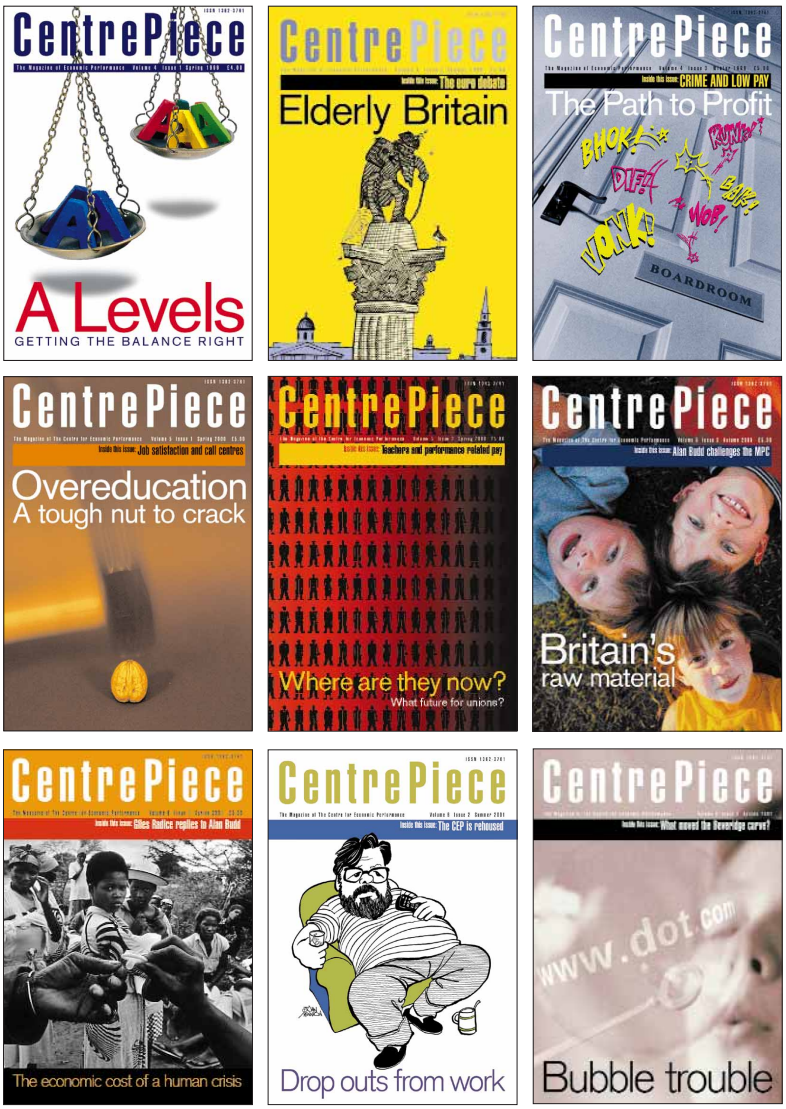

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