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Can the Market Police Environmental Policy?

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In this article **Alison Thomas** *assesses the role that the market can play in encouraging compliance with environmental legislation. She finds that the relationship has changed in recent years from one where shareholders were penalised for holding companies with good environmental records to a position where compliance now raises a company's value in the market.*

Central to the research enquiry of the Centre for Market and Public Organisation is a desire to understand better the interaction between government policy and the market place. When must a costly and publicly run monitoring and disciplining infrastructure be created to back government policy? When can the state rely instead upon the efficiency of the market to provide the necessary incentive to ensure compliance with government mandates?

The enforcement of environmental standards has typically been seen as the domain of the government. Pollution is an externality which is notoriously hard to price and which has thus been ignored by the market place. Government, therefore, has to encourage the desired behaviour either through the imposition of an "artificial" constraint on the market, such as the hotly debated tradable pollution units, or through an explicit system of monitoring that is reinforced by financial penalties.

My analysis suggests that costly and explicit intervention in the market to ensure compliance in this area may not always be necessary. My work suggests that a change in emphasis in government policy may alter the stock market's valuation of a company that fails to adopt and comply with an explicit environmental policy.

Environmental Policy in the UK

Contents

Ahead of the Earth Summit in Rio de Janeiro in 1991, John Major announced the setting up of an Environmental Agency and introduced the framework of what was to become the Environmental Act. This Act received its Royal Assent in July 1995 with the Agency becoming fully operational on 1st April 1996.

The newly formed Agency amalgamated the previously separate environmental authorities of the UK; namely the National Rivers Authority, the HMIP and the Waste Regulation responsibilities of the local authorities. Through this integration of environmental management, the government aimed to enforce the "polluter pays principle while ensuring that policies are delivered in the most cost-effective and unburdensome manner." The stated aim of the government was not to reduce cost through this restructuring, but to "improve the protection and enhancement of the environment". [1]

The government did not aim to increase the budget allocated to monitoring compliance – indeed it was widely thought that some savings might result. Nor did the government significantly change the scale of the economic penalties awarded against violators. What it did achieve over the period of the early 1990s however was to change society's understanding of the long-run cost of exposure to environmental clean-ups. It was thus increasingly acknowledged that an investment today in environmental safety protocols could save money in the long run.

The purpose of my analysis was to examine whether this significant shift in government emphasis changed the way in which the stock market evaluates companies that are less environmentally aware than their peers. Are shareholders rewarded more for investing in companies have an explicit environmental policy versus those who have no such policy? Are they relatively worse off when holding a portfolio of companies that have a record of polluting the environment? And has this pattern of returns to investors changed between the pre-1992 period and the post 1995 period?

A Unique Data Set

The data on environmental policy was collected by Croydon Borough Council from the top 297 companies held by its pension scheme. This survey was conducted by the pension fund in response to a broad-ranging initiative instigated by the Council following the call by the 1992 United Nations Conference on the Environment and Development at Rio de Janeiro for all individual and local communities to find ways to utilise better scarce natural resources - an initiative commonly known as Agenda 21.

Of the 297 companies canvassed by the pension fund, 291 are quoted on the London exchange. Of these, 131 replied to the questionnaire. Amongst other questions, each company was asked whether they had adopted an environmental policy, whether they had ever been prosecuted by an environmental agency and whether they train staff to ensure compliance with their adopted environmental protocols.

The Analysis

The purpose of the analysis was to determine whether the returns that accrue to the shareholders of companies that have an active environmental agenda are different than those earned by shareholders in companies that do not. Ideally, a researcher would want to be able to measure the degree of "commitment" to good environmental practice of the employees of each firm. Having established which firms are more determined to maintain high environmental standards than their peers, the researcher would then test to see if those firms outperform over time. Unfortunately, a pure measure of "commitment" is not readily available and thus three proxies were used:

(i) the adoption by the company of an explicit environmental policy;
(ii) any history of prosecution by an environmental standards agency;
(iii) the inclusion of environmental protocols in staff training programmes.

The data set was analysed using three distinct time frames; the pre-1992 period, the post-1995 period and finally the intervening years. These time periods were chosen to reflect critical periods in the development of environmental policy discussed earlier.

[1] 'The Creation of the Environment Agency. The Environment Agency Bill and Timetable' Geoff Mance, Director of Market Testing, National Rivers Authority, 21 February 1995

Recognising that the relevance of environmental policy varies greatly by industry, the analysis focussed on the subset of industries that have a track record of polluting. Although there was a subjective element to the selection criteria used for inclusion in this sub-set, selection was heavily guided by the Environmental Agency's list of the country's worst environmental polluters which they classify by industry.

The Findings

The traditional view of environmental compliance would suggest that the stock market will not provide any form of incentive for managers to invest in environmental protocols. Indeed, the recent debate about the short-termism of Corporate UK would imply that the Stock Market might actively *discourage* such long-term investments, penalising managers for assuming such costs without any immediate returns. For this reason, the traditional wisdom has assumed that explicit and costly government intervention is necessary to ensure that "good corporate citizenry" results.

The results of the analysis suggests that with the improved information set that was generated by the lively debate in the early 1990's, the price mechanism of the stock market may in itself offer an incentive to managers to alter their investments in environmental agenda.

When analysing the return to shareholders in those companies that have adopted an environmental policy versus those that have not, it was found that the adopters outperformed the non-adopters. This would imply that it was in the companies' and shareholders' interests to have such a policy in place.

Of greater interest were the findings of the analysis of the company's track record on prosecutions under environmental legislation. Here, the market significantly alters the way in which it rewards the shareholders of violators over the different time frames considered. In the earliest time period, there was a significantly *positive excess return* to those companies that have been prosecuted. However, in the final period, the period following the enactment of the new Environmental Act by the UK government in 1995, a history of prosecution for breaches of environmental standards *reduced corporate excess returns.*

Finally, training in environmental protocol does not appear to affect excess returns.

The correlations found, though of great interest to policy makers, to the investment community and to corporate management, require further study. In particular, the data provided currently lacks details on the dates on which policy was adopted, or when prosecutions occurred. The inclusion of this information would provide further insight into the way in which the Stock Market has rewarded an investment in environmental policy over time. Most notably, the addition of such data would allow the investigator to determine the causality of the interaction between the excess returns earned and the adoption of environmental policy. Indeed, given the observed explanatory power of the variables used, future research should pursue this further.

Conclusion

The starting point of the analysis was to determine whether there was any interaction between the emphasis placed on environmental issues by the government commitment to environmental issues and the way in which the market prices environmental risk. Is traditional theory correct in assuming that, with such an intractable externality, managers can only be incentivised to invest in environmental protocol through explicitly monitored rules or through an explicit system of fines?

The results showed that companies with a history of prosecutions by an environmental agency were rewarded by the market before 1992 and penalised by the market after the enactment of the Environment Act in 1995. What might explain this reversal in fortunes for this sub-set of companies? One possible interpretation is to view the pre-1992 returns as the Market taking the evidence of prosecutions as a signal of management's willingness to cut costs. The size of fines applied would have no economic impact on any quoted company, so not "wasting" corporate resources on a costly environmental programme was viewed as being in shareholders' interest. In this interpretation, short-termism would seem to live. Explicit and costly government intervention through

traditional wisdom has assumed that explicit and costly government intervention is necessary

a history of prosecution for breaches of environmental standards reduced corporate excess returns

monitoring and through financial penalties would thus be required to ensure compliance.

So what might explain the complete reversal in the returns earned by investors in polluting companies after 1995? Here it may be argued that after this date the risk premium applied by the investment community to companies with a poor environmental track record altered substantially. Exposure to this factor was now viewed as a possible signal of poor managerial control and thus a possible lead indicator of an undesirable volatility in the future earnings stream. The cost of capital for this subset of companies would thus appear to have changed over time. The market mechanism might thus be seen as now providing a discipline in the corporate environment. Less explicit government control is therefore required to ensure compliance.

Implications

There are two obvious implications for these initial findings;

central policy initiatives can stimulate the market mechanism

(1) Even in the seemingly unwieldy field of corporate pollution control programmes, central policy initiatives can stimulate the market mechanism to alter the price that it is prepared to pay for perceived exposure to environmental risk. By so doing the market significantly changes the incentive that managers have to comply with the content of the stated policy. This perceived change in incentive structure has occurred without the state having to increase the infrastructure used to monitor compliance or to increase the explicit economic penalties for violations. The research agenda of the CMPO seems more pertinent than ever. The interaction between state and market must be better understood to ensure that resources are efficiently allocated.

(2) The analysis has given no assessment of whether the new valuation parameters applied by the market reflect *efficiently* the cost of possible exposure to environmental disasters. To encourage an efficient evaluation of the policies of the different companies in light of the potential hazards that may ensue, the status of a company's environmental programme should be communicated to investors on a routinised basis and in a standardised format that will allow peer group rankings.

Given the strategic importance of this area of government policy, the CMPO intends to extend this research further in the future.

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Suffer the Children

Today one third of British children, more than 4 million, are living in poverty. Nearly one in five children are growing up in a household where no one works and one in eight where no resident adult has worked in three years. These figures dramatically illustrate the scale of the problem that the government needs to address if it is to meet its target of eradicating childhood poverty within twenty years. Here **Paul Gregg** *reports on research undertaken with Susan Harkness and Stephen Machin for the Joseph Rowntree Foundation. The research highlights the damage that childhood deprivation does to educational attainment and success in the labour market and also looks at the policy implications.*

Introduction

Today one third of British children, more than 4 million, are living in poverty – three times that of the late 1960s. In the study, conducted for the Joseph Rowntree Foundation, we find that childhood poverty has increased relentlessly since the late 1960s, with perhaps surprisingly, the sharpest increases occurring since the mid 1980s. The study goes on to document the damaging impact childhood poverty has on people's experiences as adults. These figures dramatically illustrate the scale of the problem that the government needs to address if it is to meet its target of eradicating childhood poverty within twenty years.

The implications of this work for policy highlights the need for three key responses. First, direct alleviation of the worst financial deprivation. Second, to tackle the staggering absence of work in so many households with children, especially it's, all too commonly seen, long-term absence. Third, to address the way poverty crosses the generations. It does this by reducing educational attainment and success in the labour market when children reach adulthood. This, along with increasing early parenthood, raises the chances of poverty in the next generation.

Children in Poverty

This study highlights the dramatic rise in childhood poverty in Britain over thirty years. Whilst the central measure of poverty we use in our study is relative, we also explored how children have been performing in absolute terms. Overall, incomes in families have risen by 30% since 1979 but for children growing in workless households (now just under one in five children) real incomes have been stagnant since 1979. So the poorest fifth of children are as poor now as their forebears were in 1979.

Central to the rise in childhood poverty has been growing inequality in the distribution of work and wages. In 1996, one in five British children lived in a household where no one was employed, a far higher incidence than in any other OECD country. This has risen from one in twenty five in 1968. It should be noted, however, that the proportion of children with working parents who were poor also showed a substantial increase, reflecting increasing wage inequality and the growth of part time work.

The growth in lone parenthood and declining levels of employment in these families means that two in five poor children live in single parent households. However, the rise in lone parenthood *per se* only accounts for one fifth of the overall rise in childhood poverty. The changing employment fortunes of families, and in particular of lone parent families, is the biggest factor behind the overall rise in childhood poverty.

That inequality and poverty has risen dramatically since the 1970s is already a well-established fact. Our research however gives the first clear indication that the burden of increasing poverty has been disproportionately borne by children. Since 1968 we find poverty rates for families with children to have risen at a much faster rate than for those without. This is in spite of a fall in the proportion of households with children and in the average number of children per family.

Implications of Growing Up in Poverty on Adult Life

The second strand of the research project shows that growing up in a disadvantaged environment is strongly related to the probability of economic and social success as an adult. Wages, employment and unemployment, the likelihood of having had a spell in prison (for men) and of becoming a young lone mother (for women) are all found to be influenced by childhood disadvantage. This strand of work is based on the National Child Development Study (NCDS) cohort data, which contains information on all people born in a week of 1958.

Using measures of social disadvantage, such as financial hardship and periods in council care, we find that those experiencing disadvantage fare badly in terms of employment and earnings as adults. Men are also more likely to have had a spell in prison, and women are more likely to be lone parents by the age of 23, if they come from deprived backgrounds. An important transmission mechanism underpinning the link between childhood deprivation and adult outcomes is educational attainment, which is vastly inferior for children in these groups. It is disheartening how the educational system is failing to stem this process. Free universal education to age 18 is provided to reduce the inequalities that family background has on educational achievement. However, inequalities in child development continue to widen after entry into the education system.

The Policy Response

A coherent strategy of attacking child poverty then consists of three elements:

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men are more likely to have had a spell in prison, and women are more likely to be lone parents by the age of 23, if they come from deprived backgrounds

the child support payments in the new Working Families Tax Credit and out of work benefits should be integrated with the proposed Child Tax Credit

1. A major increase in the incomes of households with children, especially those with younger and larger families.
2. A drive to reduce the number of children growing up in families with no one in work. Work in the household is vital to prevent families from just existing on welfare payments for long periods. In 60% of currently workless households with children, no resident adult has worked in at least three years.
3. To diminish or eliminate the ways in which deprivation is transmitted into adult life. Helping with early childhood health and development, reducing the impact of a poor background on educational underachievement and reducing the extent of unemployment among youths.

The government is acting on all these fronts but with finite resources allocative choices have to be made. Should they start with alleviation of the most acute poverty or alternatively to go for areas where there is a potential to create virtuous circles or multiplier effects? Reducing working poverty, through the Working Families Tax Credit and the Child Tax Credit due in two years, has a direct alleviation effect and by improving work incentives encourages marginal groups to move into work. The Treasury estimates that the measures already in place or announced will lift 750,000 children out of poverty in this parliament. This estimate assumes no change in the distribution of work across households from changing incentives. Research at the Institute of Fiscal Studies suggests that by ‘making work pay’, these policies could induce around 130,000 adults with children from workless households to return to work. As most of these households will also be moved out of poverty almost 1 million children could be lifted out of poverty by the government’s current programme.

Even so not all families with children will work in twenty years time and others will have only a few hours or low paid work available. Many jobs open to those out of work are unstable and we frequently observe a low pay - no pay cycle between such jobs and worklessness among those on the margins of the labour market. Canada, Australia and New Zealand have been moving toward creating integrated child support systems that cross the work divide. This stability of support means that a person can at least guarantee that child support payments are available even with uncertain other incomes. These payments are then means tested, partially at lower incomes and partially at high incomes. In these countries children are treated as a life cycle event that increases need relative to income. Taking this view over the lifetime implies that having children entitles you to lower net tax contributions and if income is low enough to net repayments to the family. There are also very good reasons to make sure payments for child support should go to the primary carer, normally but not necessarily the mother. But the main difference from the UK is the unified system of support that crosses the work divide.

Pursuit of this agenda in the UK would mean that the child support payments in the new Working Families Tax Credit and out of work benefits should be integrated with the proposed Child Tax Credit_to create a single system. As much as can be afforded should go through the dense area of the earnings distribution and be affluence tested from richer families rather than aggressively means tested from poorer ones. This reduces the poverty trap and should help generate widespread support for keeping payments generous. Some portion will be means tested, as with WFTC currently, to keep costs manageable. This new system, an Integrated Child Credit, could be the main vehicle for the vital task of direct alleviation. It would preserve the newly improved work incentives provided by WFTC and offers greater income security around the risky transitions into and out of work.

In addition a child poverty reduction programme should tackle inter-generational transmission. This should be focused on getting the education system to work harder as an egalitarian force. One option is for schools with children from deprived backgrounds to get more resources. Smaller infant class sizes in poorer areas could be integrated with the Sure Start and Educational Maintenance programmes to maintain any gains through the education system. Reducing teenage birth rates and helping tackle the disadvantages faced by those leaving Local Authority care are initiatives in a similar vein.

Conclusion

There has been a huge increase in childhood poverty since the late 1960s, with 4.3 million children currently living in poverty. Over half of these children live in households where no one is in work. Furthermore if one compares the income levels of households with and without children it is evident that incomes of those with children have fallen further behind others since the late 1970s.

Longitudinal data, which follows children through life, shows a strong relationship between childhood disadvantage and economic success or failure as an adult. Education acts an important transmission mechanism in this process. The cohort studied grew up in the 1960s and 1970s. The fact that child poverty has risen so rapidly since then means these results are likely to be all the more important for children today.

The government has committed itself to eliminating child poverty in a generation. By and large children in twenty years time will be born to those who are children now. Given the intergenerational transmission of deprivation, the government will have to reduce the damage poverty is doing to children now. This means direct alleviation, getting work and wages into families with children and tackling the way poverty reduces a child's opportunities in later life – notably through educational underachievement. The government has started moving on all these fronts and the resources committed are substantial, at around £6bn according to the recent DSS poverty report, but is, perhaps, only a quarter of what is required.

Government Regulation of Insurance Sales Practice

The recent mis-selling scandals in the UK pensions and mortgage industries have substantially damaged consumer confidence. In the following article **Sharon Tennyson** *looks at the possibilities for successful self-regulation of insurance markets. She assesses the impact and requirements of government regulation and examines the need to improve customer education.*

In recent years, sales agents of pension and life insurance products have come under strong criticism for misleading and high-pressure sales practices in several countries, including the UK and the US. Insurance sales agents have been accused of exaggerating the benefits of policies or failing to reveal key elements of risk to consumers, thereby misleading consumers into purchasing disadvantageous or excessively risky policies. A number of firms have been forced to pay large amounts of financial compensation to consumers as a result of these misdeeds.

Are problems such as these endemic to insurance markets, or unfortunate isolated occurrences in otherwise well functioning markets? And, importantly, can these occurrences be prevented or resolved by stronger government regulation of insurance seller conduct? These are important questions in the evolving market and regulatory environment. In response to the above mentioned problems and similar concerns regulation of providers and sellers of life insurance and pension annuities has been strengthened in the U.K. and several other countries. The establishment of the Financial Services Authority in the U.K. is intended to enhance regulatory effectiveness by bringing previously diffuse authority under a single organisation with broad regulatory powers and specific enforcement authority.

The primary motivation for regulating insurer sales practices is the idea that consumers in these markets are imperfectly informed about products, prices and seller quality, and that there are significant impediments to their becoming informed. A central information problem that consumers face in insurance markets is judging product quality. The quality characteristics of an insurance policy are difficult to ascertain due to the complexity

consumers in these markets are imperfectly informed

product quality is difficult to ascertain

of the contract, the contingent nature of many of the services provided (e.g., claims handling and payments), and the fact that many services are provided over time (e.g., investments). As a result, product quality is difficult to ascertain in advance of purchase and may remain so even after significant experience with the product. Indeed, product quality has an individual component, in that the quality of an insurance product includes the appropriateness of the product for the particular purchaser's needs. Price comparisons are also often difficult in insurance markets, since prices are individualised (reflecting the risk characteristics of the buyer). Finally, product heterogeneity across insurance sellers is often manifested in details regarding investment strategies and returns, the definition of insured events, or the amounts of coverage extended for specific events, making comparisons across price and quality dimensions even more complex. These barriers to price and quality information have potentially important consequences for consumers in insurance markets. Among these are reduced incentives of insurers to compete over price and quality, and the potential for insurance agents to misrepresent products or product quality to induce consumer purchases.

Counterbalancing these problems are competitive market forces, which should work to protect consumers from abuses. Firms engaged in competition have strong incentives to maintain faith in their products and thus to provide high quality products at appropriate prices. This is especially true in markets for long term financial products, in which consumer confidence is central in consumer decisions to invest. In these markets, once quality problems (including misrepresentation) are made public, consumers' difficulties in discerning product quality will work against the industry. If consumers lack confidence that the industry provides products and services that meet quality expectations, and cannot ascertain with certainty the quality of a particular product, consumer willingness to purchase will be greatly reduced. One example of this phenomenon is the pensions mis-selling scandal in the U.K. in the mid-1990s, in the aftermath of which industry sales fell significantly.

Reputational constraints on quality will work only imperfectly in insurance markets however, due to consumers' limited opportunities to observe many aspects of quality. When poor quality is difficult to discern even after purchase, and is realised only with a significant time lag, an individual firm will experience no immediate reputation loss from providing low quality. Hence, even though the potential adverse effects of poor quality for the industry as a whole are very great, individual firms and sales agents do not bear the full burden and will not correctly weigh these costs in their decisions. An individual firm or agent will weigh only the direct benefits and direct costs of misrepresentation or low quality provision. This is because industry reputation is a public good which benefits all industry members irrespective of that member's contribution to maintaining the reputation.

The importance of consumer confidence in the industry and the public goods aspects of industry reputation are, of course, the reasons for the long history of insurance industry self-regulation. Collectively, the industry has an interest in monitoring the actions of individual firms and sales agents to prevent actions that undermine consumer confidence in the industry. Government regulation is a substitute for self-regulation and will be viewed as preferable if self-regulation appears to have failed or if there is a perceived need for stronger enforcement powers than those available to industry overseers.

Seen in this light the current demand for stronger government monitoring of life insurance and pension annuity sales arises less from the realisation of new problems in the industry, than from market conditions which, at least temporarily, increase the impact of information imperfections in these markets. There is ongoing rapid change and innovation in these product markets, with many new and increasingly complex products (from the consumer's perspective) being offered. This innovation arises in part because of growing competition due to the increase in integration across financial markets, and in part because demographic and social changes are increasing product demand (notably for pensions and other investment vehicles). In the U.K. and in other countries the situation is exacerbated by changes in state pension provision, which encourage purchase of private pensions. Moreover both competitive and social forces are leading to an increased focus in sales to previously untargeted middle and lower income markets, in which consumers may have less experience with financial products. Greater competition for consumer dollars, new products and a relatively uninformed consumer population combine to produce a climate in which adverse outcomes for consumers will be more likely.

Evolution in insurance distribution systems also raises concerns about the need for stronger and more centralised consumer protection regulation. Important ongoing changes in the market include involvement of banks and investment firms in insurance product sales and the increasing use of the Internet as a sales medium. This proliferation of sales venues increases the complexity of monitoring and enforcement efforts.

The remaining issue is the scope and form of government regulation of sales practices. In insurance sales, as for most other financial products, the primary regulatory tool is the mandating that certain types of information are disclosed to consumers. Disclosure rules prevent false, misleading or incomplete disclosure of relevant policy features. Disclosure rules do not, however, assure improvements in consumer decision making. Technical information may not be understood or correctly processed by many consumers, and large amounts of information may even make decisions more difficult, particularly for consumers with little financial training or education.[1] Moreover, in markets for long term insurance, product quality may change after the purchase is made. Even if disclosure rules improve consumers' ability to estimate product quality at the point of purchase, if quality varies over time monitoring must be continuous throughout the life of the policy. This implies that disclosure at the time of sale, even if effective, is not sufficient.

For these reasons, it is often argued that direct regulation of insurer and agent behaviours is preferable to disclosure. However, the weak link in consumer protection regulation of this form is discovery and enforcement. Even granted broad powers to investigate firm and agent practices, investigations are costly and are most effective at the level of the individual firm or agent. Given limited investigative resources abuses may go on for a long time without being discovered and punished. In theory, a low probability of discovery does not undermine the objectives of enforcement so long as the penalties for infringements are sufficiently great. However with limits on penalties, great uncertainty surrounding the probability of discovery and the high consequences of selling abuses for individual consumers, regulatory monitoring may not in practice achieve socially optimal results.

Given the limitations of disclosure rules and of direct monitoring, regulatory intervention naturally expands in scope and detail in attempts to assure effective protection of consumers. Common formats and content requirements for information disclosure must be developed. Detailed disclosure by firms must be supplemented with simpler information provided to consumers (e.g., shopping guides or comparative information) by regulators. Clear and direct lines for consumer complaints must be established, as well mechanisms for publicising and responding to complaints. Equally important is the establishment of common databases for regulatory information retrieval, allowing sharing of information on firms, agents, and consumer complaints obtained from different sources. These provide essential support for the disclosure and/or monitoring mechanisms.

monitoring must be continuous

From this discussion, it is abundantly clear that devising an effective regulatory mechanism is a costly undertaking. However, centralised regulation is probably less costly than piecemeal regulation, and provides potential benefits to both insurance consumers and to insurance markets. The main problem is assuring that benefits are realised and outweigh costs. One essential key to increasing regulatory benefits and reducing regulatory costs is creating an informed consuming population. Consumer understanding of financial products and planning principles currently lags well behind the pace of change in financial markets. Studies verify that informal and formal education in personal finance does increase knowledge and can change consumer

one key is creating an informed consuming population

[1] There also may be unintended side effects of disclosure regulation that can harm consumers. For example, the 'best advice' requirements in the UK have been argued to cause a move away from independent sales agents, since this form of distribution carries a greater disclosure burden. This shift can harm consumers if independent agent advice is an important means of becoming informed.

behaviour in financial markets. The need for regulatory intervention to supplement information disclosure and competition would be greatly diminished by the existence of educated consumers. Private sector efforts to report on and monitor insurance institutions would also be encouraged by greater numbers of educated consumers. Other private sector developments can also help to discipline markets. For example, employer provision of insurance, or purchase of insurance via organised groups, increases consumer bargaining power and enhances the incentives of firms to compete over price and quality. Pursuit of such non-regulatory remedies will enhance the current net benefits of regulation and reduce needed regulatory intensity over time.

Incentives to become an Economist: Policy for Postgraduates

Amid a widespread fall in the numbers of new British PhD students in Economics and other disciplines a recent report has concluded that the answer is to pay academic economists more. In this article **Simon Burgess** *and* **Carol Propper** *examine the arguments and propose an alternative. They suggest one solution may lie in the restructuring of the grant system for master and doctoral degrees and by a re-assessment of the way economists are trained.*

The numbers of British students enrolling for PhDs in economics is falling. There were no British students who started PhDs at two of the top economics department in the country in 1999. The provider of government funds for students wishing to do PhDs in economics has had difficulties in finding enough well qualified British students to give grants to. A recent report concludes that the solution is to pay academic economists more[1]. But this pattern is not unique to Britain. Research in the US shows that fewer Americans are taking PhDs in economics[2]. And nor is it unique to economics in Britain: a recent survey shows similar problems for engineering, mathematics/IT, physics and biological and environmental sciences[3].

[1] Stephen Machin and Andrew Oswald (1999) Signs of Disintegration: a report on the UK economics PhDs and ESRC studentship demand.
[2] John J Siegfried and Wendy A Stock (1999) The Labor Market for New PhD Economists Journal of Economic Perspectives vol. 13 no.3 pp. 115-134
[3] Survey of Postgraduate Study Intentions conducted by the University of Sheffield, 1999

Higher pay?

The argument for paying academics more goes as follows. Demand for economists in non-academic life has risen and with it the rewards paid to economists in business and government relative to those in academic jobs. This has attracted economists away from the university sector, and has caused the decline in the numbers training for academic life by taking a PhD. The result will be a decline in the quality of economics research produced in British universities. Again, the same appears to be true in the US: many of the top students are forsaking research for the lure of Wall Street salaries.

falling quality is a public policy issue

Falling quality is a public policy issue, as the nature of research means there will be too little produced if left only to the market. If the government is to devote more money to this problem, is increasing academic salaries in economics (and possibly other "near-market" disciplines) the best way to do this? There are alternative policies that may represent better uses of scarce public funds.

Other solutions

Higher education is subsidised by the government, but the expansion in the sector means the support given to each student is far less than before. The consequence is that potential PhD students arrive at the end of their Masters courses with substantial debts – probably over £5000 with maximum public support, or over £10000 if the Masters was self-funded. They then face the prospect of at least another three years on a very low grant. It is not surprising that the most common reason cited for not doing a PhD is debt[4].

This argument can be linked to the way in which public money is spent on Masters and PhD in the UK. Currently, the government provides some scholarships for students to study both Masters and PhDs in economics, presumably on the ground that research is a public good. But *Masters* level economics is not a public good: it is training to enter both academic and non-academic work. It has emerged as the main professional qualification and provides access to many well-paid jobs in consultancies, regulatory agencies and business. Many of these jobs involve doing "real economics", and attract many students who might otherwise have taken a PhD. In this sense, economics has been too successful at de-coupling postgraduate training into a professional qualification and a research apprenticeship. One policy option is to take away the subsidy from Masters level students and transfer it to PhD students. This would stop the public funding of training for entry into business. If the subsidy for PhD students was provided in part as a bursary upon completing the thesis, this would greatly reduce the fear of debt, and also provide an incentive for completing on time.

The market for new PhDs and Incentives for Research

Another issue for potential PhD students is the nature of the market in academic economics at entry level. The last decade has seen a huge rise in the proportion of academic staff in British Universities who are employed on temporary contracts. This rise can be linked to attempts by the government to incentivise the academic world and to increase research output at universities by ranking them and rewarding them according to their research output (the Research Assessment Exercise, RAE). This has led to an increase in the amount of externally funded research that is used by university departments to buy replacement teachers on short-term contracts. Some research funders, seeking value for money, do not even pay full replacement costs. Another consequence of the RAE is that universities may be reluctant to hire individuals unless they have a record of publications. This takes time to build up. So the consequence is that newly qualified PhDs looking for a job in academia can often expect to be hired initially only to a post lasting only one or two years. Changing the way funders pay for replacement teaching so that universities can offer longer term contracts and making the tenure qualifying period longer would both give newly qualified PhDs greater certainty and reduce risk for departments in making permanent hires. Indeed, the Leverhulme Trust has recently announced that it expects fund holders to employ contract staff for the length of the grant, rather than a series of short-term posts.

Masters level economics is not a public good

Another approach would be to change the nature of the PhD and the conditions in which PhD students do their training. In the US, PhD students are able to earn money and get training by teaching courses or doing research (in 1996, 40% of US economics PhD students cited a Teaching Assistantship or Research Assistantship as their source of funds). Such arrangements are growing in Britain. Formalising these would increase the income of PhD students and also integrate them more into the Departments in which they are studying. Reducing the amount of new research that a PhD is expected to contain would also reduce the risk of the PhD process. It is interesting to note that the median time for completion of a PhD in economics in the US is almost 7 years. This period bundles together several activities that are currently separated out into different stages in Britain. These are general high-level economics training, learning the art of doing research, producing original work, getting started on teaching. Thus the PhD in the US is more-or-less the equivalent of a Masters, a PhD and a one-or-two year temporary lectureship in Britain. The difference for the student in the US system is greater certainty: they know they will get research training, teaching experience, and enough income to prevent

[4] Survey of Postgraduate Study Intentions conducted by the University of Sheffield, 1999

providing higher wages will simply reward those already in the sector

them accumulating further debt. Bundling the different components in this way might alleviate the uncertainty associated with doing a PhD in the UK, and while the age at which people finished training would appear to rise, this rise would not be out of line with either the US or the rest of Europe. For example, the median age of PhD completion in the US is 32. This approach is clearly not all of the answer because, as noted above, PhD enrolment is falling among Americans too.

Raising academic salaries in near-market disciplines might help encourage more PhD students. It would be a better prize if the student successfully embarked on an academic career. But it is rather a blunt instrument. A close look at the numbers reveals that while the number of British students enrolling on PhDs in economics has indeed fallen, the number of students from other EU countries has risen, and the rise in these numbers has more than matched the fall in British students. Many recent hires in UK Universities are from EU countries other than Britain. As long as the conditions of employment in British Universities are better than those in some other EU countries, we would expect that these students will provide a pool on which British Universities can draw. Providing higher wages in the UK will simply reward Europeans who are already prepared to accept UK jobs and those already in the sector.

The increased debt and uncertainty associated with doing a PhD, and the too successful unbundling of training and original research have meant that the pull of academic life in economics has diminished. To draw students back requires considering new models of PhD training and using government funding in a different way to promote the PhD over a Masters.

Incentives in Health Care

Friday 28th April 2000

If you would like further information about this workshop please email the CMPO administrator, Clare Cox at cmpo-office@bris.ac.uk

PhD Research in the CMPO

The Centre houses a number of PhD students. We are currently taking applications starting in October 2000 for students working in areas close to the Centre's interests. Funding is available through University of Bristol scholarships.

For further information contact Dr Maija Halonen at maija.halonen@bris.ac.uk

The Centre for Market and Public Organisation was founded in September 1998 with the objective of furthering our understanding of an appropriate design for the reform of a wide range of activities on the 'boundaries of the state'. The Centre aims to develop research, further debate and inform policy relating to the public sector and the recently privatised entities. Further information can be obtained from:

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