The Frank E. Seidman Distinguished Award In Political Economy

Acceptance Paper by

Anthony Barnes Atkinson

The Economics of the Welfare State

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THE FRANK E. SEIDMAN DISTINGUISHED AWARD IN POLITICAL ECONOMY

Objective

The Seidman Award recognizes distinguished contributions to Political Economy by economists or other political and social scientists who, by conventional and/or innovative approaches, have demonstrated their dedication to improving human conditions. The Award seeks to honor scholars who have advanced general understanding of the roles of democratic values to public institutions, government policies, private enterprises, and free markets in promoting economic well-being and social welfare.

Selection Procedure

Each year nominations are solicited worldwide from the economics and social science professions. Following a defined process, the recipient is chosen by the Board of Trustees, acting upon recommendations of a Selection Committee composed of eminent economists appointed for limited terms. The Award is presented annually at a formal banquet hosted by the Award's Trustees and Rhodes College.

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1983 Award Recipient
1987 Nobel Laureate in Economics
Institute Professor of Economics
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I cannot remember if it is Nike or Reebok that tells you to "just do it." Of course, that is the one thing that academic people like me, and like Tony Atkinson can't manage. We always have to stop and think: Is this really the best thing to do? Even if it is the best thing to do, should we do it now, or would it be better to wait? Even if it is the best thing to do and should be done now, why is it the best thing to do? What changes in circumstances would make something else the best thing to do? It is actually possible to get so wrapped up in these questions that you never actually get around to doing anything. That may not be all bad. Some academics never even get around to writing anything. As I get older, I come more clearly to the realization that that may not be all bad either.

Although this is the 22nd Seidman Award in Political Economy, the Selection Committee and the Trustees still exercise themselves annually about what "political economy" means. Probably it means going a little further along the road from thinking about doing it to doing it than most academics ever go, but not too far. If that is so, then Tony Atkinson is just the sort of person we have in mind. My job is to tell you a little about him, and why he is this year's Award winner, hand him his check and let him talk to you and you listen. He is a Brit as you will notice, just over 50 years old, educated at Cambridge University. I may have met him before 1973, but I got to know him and Judith in 1973, when he was visiting professor at MIT. He has had, in many ways, a standard academic career, having taught at Cambridge, at the then new University of Essex, at University College, London, at the London School of Economics (for 12 years), then briefly at Cambridge again, before moving to Oxford where he is now Warden of Nuffield College. Nuffield College is not a prison: it is an Oxford College for graduate students in economics, politics, and perhaps, the other social sciences. I will come back to the Wardenship at Nuffield in a minute, because it tells a story, but first I want to continue with the ordinary academic career.

Professor Atkinson has done his share of writing, God knows. He has been a world leader in the study of what used to be called Public Finance,

but is now called Public Economics, in recognition of the fact that governments and public bodies actually do other things besides raise revenue. He has edited the Journal of Public Economics since it was founded in 1971; it is one of the premier learned journals. It is what you look at if you want to know about the most advanced serious thinking about public economics. (For unserious thinking, you have your choice of Ross Perot or the Congressional Record.)

I only want to mention two parts of Professor Atkinson's professional writing. He is the author, along with Joseph Stiglitz, of the leading advanced textbook on taxation and public economics. (Incidentally, Dr. Stiglitz, current chairman of The Council of Economic Advisors, should be introducing Professor Atkinson. Those who know Dr. Stiglitz well were offering 8 to 5 that he wouldn't make it.) This is very important, because it shapes the next generation. In the 19th century, another, older, Oxford College, namely Balliol, had a very famous master named Jowette. A piece of Doggerel about him said: "Here I stand my name is Jowette. If it's knowledge, then I know it. I am the master of this college. If I don't know it, it isn't knowledge." Something like that can be said of Atkinson and Stiglitz.

Secondly, Atkinson has devoted a large amount of time and effort to the study of inequality, especially the inequality of income and wealth. His work on this subject ranges from quite abstract theory to the detailed collection and analysis of the facts about inequality in Great Britain, Europe, and elsewhere, and to the nitty-gritty of criticizing policies that have been adopted by governments to deal with inequality, and to designing policies to be adopted by clever and virtuous governments to deal better with inequality, if such a government should ever come to power. If ever there was a body of work that should be called political economy, this is it.

I want to emphasize that it is the whole body of work, including parts that any normal human being would find forbiddingly abstract, even academic. One of the topics of which Atkinson is an acknowledged master is the question of the measurement of inequality. Suppose I show you a thousand families; they do not have the same income, so there is some inequality. Suppose I show you a thousand adult females, not all of the same height, so their heights are distributed unequally. Which is more unequal, the thousand incomes or the heights? (This seems like a silly comparison, but I want you to realize that we are just talking about a thousand numbers.) The answer is not obvious: inequality is not a simple notion. It may not be possible always to say with confidence that

this collection of numbers is more unequal than that collection. To a person like Atkinson, who is serious about understanding inequality, and thinking about if it is a problem or when it is a problem, and whether it should be public policy to do anything about it, and, if it is public policy, what sorts of measures will have desirable or acceptable effects, and at what cost, to such a person the measurement of inequality is a necessary piece of the political economy of inequality.

Of course, the political economy of inequality does not end there, and neither does Professor Atkinson. He has been a member of Royal Commissions, and advisor to Committees on Social Services and Pensions of the House of Commons, and he has been a leading contributor of ideas on social justice, economic inequality, and the creation of an effective and equitable "safety net" to the British Labor Party, and the European Union.

So now he is Warden of Nuffield. I think of that as the quintessential establishment position in political economy in Great Britain. The Warden of Nuffield is the center of the web, and the Brits really know how to run an establishment. You are about to hear from someone who has made a brilliant career in academic economics, has chosen to work, not on money and banking or international finance, but on poverty and inequality and their remedies, has served on important governmental commissions while being a respected advisor to the Labor Party, who is listened to in the European Union, and is now at the very center of the academic social-science enterprise in the UK. If you have nothing to learn from Tony Atkinson, you are either a total genius or a total loss. Those groups may leave now. It is my pleasure to present the Seidman Award to Professor Atkinson, and present him to you.

1 The Welfare State and Economists

The subject which I have chosen for this Paper - the economic impact of the Welfare State - is a topic often considered as essentially European, but it is one which is increasingly being discussed in all countries. If tax reform was the OECD policy issue of the 1980s, reform of the Welfare State is likely to be the issue of the 1990s. In many OECD countries there are concerns expressed about the scale of social spending, and calls for cuts in expenditure in order to solve fiscal problems or to improve economic performance. This applies especially to social transfer expenditure, on which I concentrate here.[1] Nor are concerns limited to advanced countries: for example, the World Bank has called for a re-thinking of the role of pensions under the title of "Averting the Old Age Crisis".[2]

Widespread interest by economists in the Welfare State was not the case when I first began work on the economics of social security nearly 30 years ago. At that time, the subject rarely appeared in the economics literature: the study of poverty was regarded as largely a matter for sociologists or political scientists. In the United States, the War on Poverty led a number of leading economists to address the policy issues, but the subject still tended to remain outside mainstream economics. Articles on social security were seldom to be found in the major academic journals.

This situation has changed in recent years. Many more economists are now studying the Welfare State, writing about such matters as unemployment insurance, invalidity benefit, and the funding of pensions. Policy towards income maintenance is seen to have implications for the labour market; policy towards retirement savings is thought to have consequences for the capital market. The Welfare State is a critical element in discussions of the budget deficit.

This discovery, or rediscovery, of the Welfare State by economists is much to be welcomed. It makes no sense to discuss economic and social policy in isolation. To a considerable extent, the present problems of the Welfare State are the result of economic failures. When advocating austere macro-economic policies, policy-makers often assume that the social costs can be dealt with by a social safety net, but a safety net can easily become over-loaded. Conversely, the design of the social transfer system has significant implications for the working of the economy, and the econom-

ics of social security raises many challenging issues.

At the same time, I have serious reservations about the direction of much recent writing by economists on the Welfare State. My first reservation is that much of the economic analysis concentrates on the impact of the Welfare State on economic performance to the virtual neglect of the functions that the Welfare State is intended to perform. Cuts in social transfers, for example, are advocated on the grounds that they, or the taxes necessary to finance them, distort the working of the labour market. But any decision about Welfare State policy requires us to look at both sides of the balance and at what the Welfare State is actually *for*. The economic costs are relevant, but so too are the benefits in terms of social objectives. Welfare State programmes were introduced to meet certain goals and one has to ask how far these goals could be achieved if a programme were cut or eliminated.

Moreover, insofar as the purpose of the Welfare State is considered, attention tends to focus on the relief of poverty, but this takes too narrow a view of its functions. The reduction of poverty is an important objective, but it is only one of the goals of programmes such as retirement pensions, workmens' compensation, invalidity benefit, child benefit and unemployment insurance. Redistribution is not just a matter of transfers between rich and poor. The Welfare State serves to even out differences in life chances, to achieve greater equity between generations, and to redress inequality by race or gender. More generally, these programmes are intended to help individuals re-allocate income over the lifecycle, to insure against events which cause income loss, and to provide a sense of security to all citizens. As Robert Haveman has described it, one important "gain from the welfare state is the universal *reduction in the uncertainty* faced by individuals".[3] Space does not allow me to consider in this Paper the success of the Welfare State in meeting this plurality of objectives, nor the judgments of value which lie behind them, but in any full evaluation they are an important part of the story.[4]

Secondly, even concentrating exclusively, as I do here, on the impact of the Welfare State on the economy, I believe that the recent economic literature has failed to recognise sufficiently its positive economic functions in a modern industrialised economy. If one reads what economists write about social security, one learns that unemployment insurance has caused a rise in the so-called "natural" rate of unemployment, that payment of disability benefits has caused people to leave the labour force early, and

that pay-as-you-go state pensions have lowered the rate of capital accumulation. However, historically, social insurance grew up as a complement to the modern employment relationship, guaranteeing workers against catastrophic loss of income through accident, sickness or unemployment, and hence providing an incentive for people to enter formal employment. In current times, as mature economies transform, people may be more willing to take risks, to retrain, and to change jobs, in a society in which there is adequate social protection. As argued by Moses Abramovitz in his Presidential Address of 1980 to the American Economic Association,

> "The enlargement of the government's economic role, including its support of income minima, health care, social insurance, and other elements of the welfare state, was ... not just a question of compassionate regard ... . It was, and is, - up to a point - a part of the productivity growth process itself".[5]

This emphasis by economists on the purely negative economic effects of the Welfare State, an emphasis which I consider misplaced, can perhaps be attributed to the theoretical starting point adopted in much policy analysis, which remains rooted in an otherwise first-best world where any tax or transfer necessarily causes a loss of efficiency. There are other starting points, reflecting recent advances in economic theory, or drawing more on macro-economics than micro-economics, which provide a different perspective. Much of this Paper is concerned with the implications for the theoretical analysis of the Welfare State of departures from the textbook model. It is however the empirical evidence which receives most attention in public debate, and it is with this that I begin.

2 Empirical Evidence and its Interpretation

The first kind of empirical evidence considered here is that which looks at the experience of different countries, measured by aggregate indicators of economic performance and their growth over time. Journalists have made a great deal of the fact that countries with large Welfare States (as measured by the ratio of spending to Gross Domestic Product (GDP)), like Scandinavia, Germany and Netherlands, have suffered a relative decline in their economic performance. And not just journalists. In Sweden, for example, the Economics Commission, chaired by Assar Lindbeck and including distinguished economists from other Nordic countries, has

identified "the crisis of the Swedish model", arguing that it has "resulted in institutions and structures that today constitute an obstacle to economic efficiency and economic growth".[6]

Is it true that countries with larger Welfare States tend to grow more slowly? To attempt to answer this question, we need to take into account other factors influencing the rate of growth, as in the recent literature on growth empirics. A review of the literature based on pooled time-series and cross-country data yields mixed results. Of nine studies which I have located, four find that social security transfers are negatively associated with the growth rate of GDP, but two find an insignificant effect, and three find a positive relationship.[7] The magnitudes of the predicted effects are strikingly different: the point estimate of the impact of cutting Welfare State spending by 5 percentage points of GDP ranges from a 1 percentage point increase in the annual growth rate to a 0.9 percentage point reduction. On this basis, if all OECD countries had in 1980 adjusted their social transfer spending to the average proportion of GDP in the OECD, then by 1990 Netherlands would have more or less caught up the United States (on one set of estimates) or fallen close to the level of Spain (on an alternative set of estimates).

I must confess that I do not find this aggregate empirical evidence compelling. A more detailed analysis of the results reveals that they are sensitive to the choice of countries covered (inclusion or exclusion of Japan) and to the other explanatory variables included (for example, whether we seek to explain total growth or the growth in factor productivity). More fundamentally, it is questionable what can be learned from this kind of evidence. Robert Solow has referred to the "suspicion that the experiences of very different national economies cannot be explained as if they represented different 'points' on some well-defined surface".[8] Even if they did, how should any association be interpreted? Causation could run from poor economic performance to high welfare state spending. It could be that there is no causal relation. The rate of growth may be fastest in the earlier stages of industrialisation, approaching its steady state value from below, and social transfer spending may grow as a proportion of GDP as social insurance matures. There would then be a negative correlation but no causal connection.

By treating the supposed relationship as a "black box", the aggregate analysis does not distinguish different elements of the Welfare State nor different economic variables. Two ways of reducing the proportion of GNP

spent on social security may have quite different economic implications, and the same programme may have positive effects in one direction and negative effects in another. To attempt to understand what is going on, we have to consider the Welfare State in a less aggregate way, as in the microeconometric evidence, which is the second type of empirical study considered in this section. One of the major areas of applied research in the past 20 years has concerned the way in which specific transfer programmes, and the taxes necessary to finance them, have affected the behaviour of individual households and firms. This research has exploited the availability of large scale sample survey data, has made use of new types of data such as those from experiments, and has developed new econometric techniques.

A concrete example is provided by research on the relation between unemployment benefits and the probability that a person returns to work, based on survey evidence about benefits, potential work income, and weeks of unemployment. Again the findings are mixed. A number of studies in the United States have found that increased duration of unemployment insurance is associated with increased mean length of time unemployed. There is evidence in the United Kingdom that receipt of unemployment assistance (Income Support) by married men is associated with a lower rate of labour force participation by their wives. At the same time, the results concerning the relation between unemployment duration and the *level* of benefits (the replacement rate) indicate either a modest effect or one which is lacking in robustness.[9]

The finding concerning the wives of unemployed men illustrates one of the contributions of research in this field, which has been to show how economics can model the complex choices which people face. Simple textbook diagrams show individuals choosing a point on a straightline budget constraint. In real-life these constraints are far from straight, and they may in effect present people with either/or choices. A good example is provided by the decision how much to save for old age. The textbook suggests that by saving $1 today one can consume $(1+r) in retirement, where r is the rate of interest over the period up to retirement. Suppose however we allow for a means-tested old age benefit, like Supplemental Security Income, which ensures a guaranteed minimum income but nothing more, in that the pension is reduced $1 for $1 for any other income.[10] In that case, a person who expects to be in receipt of the means-tested old age pension will derive no benefit from extra savings: saving an additional $1 today yields nothing extra in retirement. This presents people with an

either/or choice: either save enough to be above the minimum level, or save nothing and rely on the state benefit.

Choices are complex in other ways. As in the earlier unemployment assistance example, they may involve more than one person. We have to model joint family decision-making, a matter which is not often referred to in micro-economic textbooks. Moreover, we have to take account of the fine structure of social transfers, to which economists have in the past paid too little attention. Unemployment benefit provides an illustration, where economic models regularly assume that the only relevant condition for the receipt of benefit is that of being unemployed. In fact, in the typical unemployment insurance programme (taking the United Kingdom or the United States as examples), benefit is subject to contribution conditions, is paid for a limited duration, and is monitored to check that the person is making genuine efforts to seek employment. Benefit may be refused where the person entered unemployment voluntarily or as a result of industrial misconduct, and a person may be disqualified for refusing job offers.

Not only do these conditions reduce the coverage provided by unemployment insurance, but also they affect the relationship between transfers and the working of the economy. The standard job search model, for example, assumes that workers can reject job offers on the grounds that the pay is not considered sufficient. Such a reservation wage strategy may however lead to their being disqualified from benefit. This institutional feature needs to be incorporated and may change the predicted impact. The same applies to the widely used 'shirking' model of efficiency wages, which assumes that a person sacked for shirking receives unemployment benefit, whereas in reality dismissal for industrial misconduct is likely to lead to disqualification from benefit.

In my judgment, the micro-econometric research on social security has yielded useful insights into the impact of specific programmes on particular dimensions of behaviour. At the same time, it has to be qualified in a number of respects. It is difficult to control for other factors which may affect both sides of the relationship. Effects may be delayed or based on perceptions rather than actual benefit receipt. There are many dimensions of behaviour which do not lend themselves to quantitative measurement. Perhaps most importantly, we are only getting a partial picture. The aggregate evidence may depict everything as a general blur, but the micro-evidence runs the opposite risk of focusing on one element to the exclusion of other relevant parts. If, for instance, people delay returning to work until

their benefit expires, then this may increase the chance of others finding work, and total unemployment may be unaffected. All that happens is a change in the *composition* of unemployment. Conversely, the effect of benefits may be on the level of wages negotiated by trade unions rather than on individual re-employment decisions. In order to explore questions such as these, we need a full model of the economy, and I turn now to the theoretical framework for such a model.

3 Economic Theory and the Point of Departure

Economic theory has made considerable advances in recent years, but much discussion of the economic impact of the Welfare State still appears to take as its point of departure a relatively simple model of the functioning of the economy: the micro-economic textbook model of competitive equilibrium. As I have already indicated, I feel that this choice of point of departure unduly influences the conclusions drawn.

The following illustrates the kind of model which many people appear to have at the back of their minds. The demand for labour by competitive firms is determined by equating the value marginal product of labour with the wage rate, leading to a total labour demand which declines with the total wage cost per worker. The competitive labour supply by workers depends on their alternative opportunities, taken to be home production. People either work in the market or at home. As the wage rises, a larger fraction prefer market work. We have therefore a simple supply and demand model of the labour market. Competition ensures that people are efficiently allocated between home and market production.

Suppose now that we examine the effect of a transfer payment to those not in work, financed by an employer payroll tax (it would make no difference in this model if it were levied on the employee). There are two possible effects. The payroll tax increases the cost of labour and reduces demand, causing equilibrium employment and output to fall. If those working at home can receive the transfer, then the supply curve shifts to the left, and output falls still further (the wage may rise or fall). As a result of these two effects, the transfer programme causes output to fall, and the allocation between home and market work is distorted. If the transfer payment is not conditional, being paid to everyone in the form of a basic income, then we have only the first effect, but the conclusions are qualitatively the same.

This example is highly stylised but captures, I believe, the kind of relationship that people have in mind when considering the economic "cost" of the Welfare State. At the same time, it is fundamentally inadequate as a basis for analysing the issue, since it does not incorporate the contingencies towards which transfers are directed. Benefit is indeed paid to people of working age but for a purpose: to provide for industrial injury, sickness, disability, unemployment and other risks. None of these contingencies are modelled. There is no uninsured uncertainty in the model, nor is the future introduced in any meaningful way. The whole purpose of Welfare State provision is missing from the theoretical framework.

The second, related, objection to the theoretical model is that it incorporates none of the imperfections which characterise actual economies. The no-government state corresponds to a first-best situation, in which the Welfare State must necessarily have an economic cost. The choice of model itself precludes the possibility that social transfers may be justified on efficiency grounds. Another way of describing the point of departure is that it is based on the micro-economic model of general equilibrium. Interestingly, fifty years ago the economics of the Welfare State was discussed more with a macro-economic perspective. In *The Economics of Social Security*, published in 1941, Seymour Harris refers to the influence of Keynes and the "need for a study of social security that would utilize the recent developments in theory and especially in the fields of money, fiscal policy, and economic fluctuations".[11] Alan Peacock in *The Economics of National Insurance* says that

> "At the present stage of evolution of national insurance, it is probably true to say that the traditional economic problems of this form of social security, e.g. the relationship between wage rates and insurance, the particular incidence of social security taxation, insurance as a deterrent of labour mobility, etc., are of less interest and importance than the relationship between it and general economic policy as directed by the State".[12]

From the standpoint of demand management, social transfers, particularly unemployment insurance, were seen as contributing to the degree of automatic stabilisation. The development of the Welfare State was complementary with concerns for full employment. When Lord Beveridge prepared his proposals for *Full Employment in a Free Society*, he did not see them as in conflict with his plan for the postwar Welfare State *Social Insurance and Allied Services*.[13]

It is, I believe, no coincidence that when the Welfare State was viewed from a macro-economic perspective then, its economic impact was regarded by economists in a more positive light.[14] Of course, times have changed.[15] Not only is the social transfer budget much larger, but our view of how the macro-economy works has been through many revolutions. It is therefore important to see what can be said on the basis of more recent macro-theory. The particular approach to macro-economics which I take to illustrate the consequences of a different starting point is that typically referred to as "new Keynesian". This seems appropriate not just as an approach to macro-economics that I find sympathetic but also because it is explicitly directed at the shortcomings of the textbook competitive equilibrium model, notably by allowing for the fact that we do not observe in the real world a full set of markets. Drawing a contrast with models that assume away imperfect information and incomplete markets, Bruce Greenwald and Joseph Stiglitz state that "modern Keynesians have identified these real world `imperfections' as the source of the problem".[16]

To give a concrete example, let us assume that (identical) competitive firms are unable to insure directly, or indirectly via equity capital, against the risk of losses. Suppose that there is uncertainty about the price at which firms can sell their output on world markets, and that labour has to be hired in advance of knowing the output price. Firms are owned by identical entrepreneurs, who are constrained by the requirement that they should have a non-negative net income even in the worst outcome. This means that the demand for labour may be limited by the amount which can be paid at the lowest conceivable output price. If such a break-even constraint is binding, the demand for labour is less than the amount which would equate the expected value of the marginal product of labour with the wage rate, as required for an efficient allocation (the counterpart of the earlier equilibrium).[17] The government now introduces a basic income, financed by a profits tax. For the entrepreneur, this policy reduces receipts in the good states, but raises receipts in the worst state, and the latter eases the bankruptcy constraint. The demand for labour would therefore increase and hence also output. Via the basic income programme the government is allowing risk to be transferred from the individual to the aggregate level. The Welfare State is acting as a risk-spreading device, as one might expect, and this can have poÖëtive effects on economic performance.[18]

This example is intended as no more than a demonstration that a different theoretical starting point can indeed lead to different conclu-

sions. It also shows that the conclusions may lack generality: in describing the model, I have had to provide quite a lot of detail. Once we leave the comfortable textbook world of competitive equilibrium with a full set of markets, this seems to be inevitable. Nor does it seem to me necessarily undesirable. In order to understand programmes like the Welfare State, we need to provide more structure to the economic model. In the following sections, I give two illustrations. Since so far I have taken unemployment and the labour market as the main example, I now give prominence to two issues affecting the elderly: pensions and the provision of long-term care.

4 Enriching the Theoretical Analysis I - Savings, Pensions and the Capital Market

The competitive general equilibrium model used in the previous section may be given a dynamic interpretation, with a full set of futures markets, but this neither coincides with the reality of existing markets nor captures the interesting features of a dynamic economy. Here, I start instead from the theory of economic growth, in which there has been a resurgence of interest in the past decade. Suppose that, as often argued, the existence of a pay-as-you-go state pension scheme reduces the level of private savings, and that the government makes no offsetting adjustment to public savings. Will this reduce the rate of growth?

The first answer is that in the Solow neoclassical growth model a reduction in saving would lower the level of output, but not affect the steady state rate of growth. The steady state growth rate at which output and capital are growing at the same rate is equal to the rate of population growth plus the rate of technical progress. In the long-run (and the speed of convergence may be slow), any decline in savings induced by the Welfare State does not affect the growth rate.

If however the rate of technical progress is treated as endogenous, rather than exogenous, then the transfer system may affect the long-run growth rate. Taking the simple version of the Arrow "learning by doing model" where productivity depends on experience, which is proportional to cumulated past investment, gives a production function for the economy as a whole which is proportional to the capital stock. A fall in the savings rate leads to a permanently decreased rate of growth, with the rate of technical progress being correspondingly reduced.

We have described a situation in which the Welfare State can have an adverse impact on the long-run growth rate. There are however a number of important considerations which are missing, since neither the economic model nor the treatment of the Welfare State are wholly satisfactory.

In institutional terms, we need to consider the alternative. George Stigler used to tell the story of the Roman emperor, judging a musical competition between two players, who gave the prize to the second having heard only the first play. We have to consider what would replace pay-as-you-go state pensions. Some people advocate a better targeting of state spending, with universal pensions being replaced by income-tested benefits; others favour state provision being replaced by mandatory private pensions. Both of these changes in policy would have economic consequences.

Suppose first that the level of state pension provided to those with no other resources is left unchanged but that the state benefit is withdrawn progressively from those with other sources of income. The pension ceases to be universal and becomes an "assistance pension". In a limiting case, the state benefit represents a minimum income guarantee of the kind that I discussed earlier. But, as noted there, the test of resources changes the intertemporal budget constraint faced by the individual. People who prior to retirement foresee that increased savings lead to a reduced state transfers may adjust their savings behaviour. In the case of the minimum income guarantee, they in effect face an either/or choice. Either they save sufficient to be completely independent in old age or they reduce their savings to zero and rely solely on the state benefit. Such a policy move towards assistance pensions, while it would reduce total Welfare State spending, creates a "savings trap" which could lead total savings to be reduced rather than increased by the policy change.

The alternative of mandatory private provision introduces a further institutional feature which is often ignored in the theoretical analysis. In order to qualify, private provision typically has to be in some protected form, either an occupational scheme or one operated by a pension institution. Employer operated schemes may affect the financing of the company sector, since the employer is liable for any deficit. Pension institutions acquire substantial weight in the capital market, and again may influence the working of the company sector. We cannot simply assume that a switch to private pension provision would be neutral as far as the capital market is concerned. A situation where savings are in the hands of pension funds is different from one where they belong to individual savers.

In order to explore the implications of a move to private pension funds, we need to enrich the treatment of the capital market to bring in investment. To this point, it has been supposed that changes in savings are automatically translated into changes in investment without specification of the underlying mechanism. Consideration of the nature of the investment function leads naturally to the introduction of the corporate sector. Suppose that we view the investment rate in an endogenous growth model as being governed by the choice of growth rate by firms which face costs of adjustment.[19] The key element in the growth theory of the firm is the stock market valuation, which is assumed to equal the present value of future dividend payments, where the discount rate is equal to the interest rate. Assuming that all investment is financed out of retained earnings, dividends are equal to profits less the cost of expansion. The firm may maximise its stock market value, in which case the desired growth rate depends on the interest rate and on the internal costs of expansion. Equilibrium of savings and investment is achieved by variation in the rate of interest. Alternatively, in the managerial version, firms maximise the rate of growth subject to a take-over constraint, such as requiring the stock market value to exceed some fraction of the "break-up" value of the assets. In this case, managers choose the highest rate of growth consistent with this constraint, which yields a different, higher, equilibrium rate of growth.

The elaboration of the capital market model allows us to see what happens if there is a move from state to private pensions, so that private pension funds come to play a larger role in the capital market. In Sweden, such a development has been welcomed by the Lindbeck Commission who see the pension funds as playing an active ownership role. The precise nature of the take-over constraint has not been spelled out, but there is good reason to expect that the larger the fraction of shares owned by pension funds, the tighter is likely to be the constraint. If this is the case, then a switch in pension from unfunded state to funded private may lead to a rise in the savings rate but a fall in the desired growth rate of managerially controlled firms. The net effect may be either to raise or to lower the rate of growth of the economy.

The existence of such a contrary effect may be considered by some readers to be mere academic theorising. There has however been considerable concern about the influence of financial institutions on investment decisions. In the United Kingdom, the Pension Law Review Committee noted that there had been[20]

"widespread discussion of the `short-termism' of pension funds.

Those who identified this as a problem saw it as making long-term investment decisions in research and development or capital projects impossible for company managements to pursue."

The Institute of Fiscal Studies has recently drawn attention to the more than doubling of the dividend payout ratio in the United Kingdom since the 1970s, arguing that it is due to pressure from institutional investors like pension funds and that it may endanger business investment.[21]

5 Enriching the Theoretical Analysis II - Provision of Long Term Care

This section considers the position of the frail elderly with disabilities who need long-term care in their own homes or in residential accommodation. While the elderly are not the only group with such needs, the increase in the number of very elderly is likely to mean that much greater provision is required. A very substantial volume of labour, both paid and unpaid, is already devoted to such care. A recent estimate for the United Kingdom is that the cost was some 7_ percent of measured Gross National Product, of which three-quarters is provided by informal carers, many of whom are women. The total is projected to rise by about 50 percent in the next half century.[22]

Whether the social security system should be extended to provide public Long-Term Care insurance is a major policy issue. Such compulsory insurance came into force in Germany this year, covering the majority of the population.[23] The scheme provides for those assessed as having one of three grades of frailty (considerably frail, severely frail or very severely). It pays a specified amount for either domiciliary or residential care (not covering the cost of accommodation or food), and in the former case offers a choice between transfers in cash or (larger) transfers in kind.

As before, we need to consider the alternatives to state provision. These include continued reliance on informal care, on which I concentrate here, and private insurance. In order to examine their implications, we need to develop the underlying economic model. Demand for caring services does not follow naturally from the standard textbook model of a person maximising the utility derived from the consumption of a bundle of goods and leisure. In this context the work of Amartya Sen on capabilities is very relevant. As he says,

"In judging the well-being of the person, it would be premature to

limit the analysis to the characteristics of goods possessed. We have to consider the 'functionings' of persons ... to wit, what the person succeeds in *doing* with the commodities and characteristics at his or her command".[24]

For instance, the activity of eating dinner requires not just the food ingredients and the time to cook but, for an incapacitated person, the time taken by another person to purchase the food and, possibly, to make sure that the cooker is switched off after use. It is not just that the time endowment is reduced (as it would be if we were simply slower at performing tasks) but that, in order to function, the person requires the input of the time of others. It is this which is measured in scales of disability such as that of the Office of Population Censuses and Surveys in the United Kingdom, whose categories include "moderate care need" (less than daily), "regular care need" (daily), and "continuous".

This approach offers a number of insights. First, as Sen stresses, the capacity to function is not purely internal to the household and the need for care depends both on social expectations and on the standard of living of others. While technological developments have undoubtedly helped many elderly people continue to function independently, in other respects the greater complexity of life has increased the demands placed on them. It is evident that, as incomes have risen, so the range of services available locally has fallen. The availability of goods depends on the incomes of others. There are many areas of government policy, such as transport and crime, which impinge on the need for care.

Secondly, it is clear that the need for daily or continuous care represents a very sizeable fixed cost. The current cost per person of residential care could well be around half the average wage. For the individual, need for continuous care may arise with low probability, but in the event of its occurring the required outlay is high. A replacement rate of 50 percent for the average earner would not be sufficient on the basis of the earlier estimate. Over time, there is likely to be only limited scope for productivity increase, and the cost may be expected to rise at a rate not far short of that of wage rates. If this is correct, then it raises questions about the current United Kingdom government policy of indexing the state pension to retail prices, not earnings as previously, which has led to the pension falling relative to average earnings, meaning that pensioners are progressively less able to afford personal care. It is not surprising that the United Kingdom study of the elderly concluded that

"it is unlikely that their income, mainly from pensions, will ever be sufficient to meet a substantial part of the cost, given current arrangements".[25]

Most current care is not paid for, since it is provided by family members or neighbours. In the United Kingdom at least the government appears to believe not only that this will continue but also that it will provide for increased needs in the future. The economic modelling of decisions about the provision of informal care poses a number of questions. It has been suggested, for example, that family members are implicitly being rewarded by inheritance, with the elderly using bequests strategically to influence the behaviour of their children.[26] I am not however persuaded that in this sphere such a large role is played by economic self-interest and calculating behaviour. Certainly one suspects that there are larger cultural differences here than in other fields. There are questions about demography. Economic models, including my own, tend to assume a neat pattern of each couple having two children, but we know that there are people who do not have children, people who lose contact with their children (for example, following divorce), people whose children emigrate, and people whose children die ("children" may in some cases be in their 70s). Despite the nostalgia about earlier periods, with calls for a return to Victorian family values, evidence suggests that, even in the past, it was a minority of the elderly who lived as dependants with their children.[27]

The reader may feel that I have deviated from the subject of the impact of the Welfare State on economic performance. However, the allocation of labour to informal care has evident implications for the labour market and the production of care is in itself an economic output, even if unpaid caring does not feature in the national accounts (although it enters Net Economic Welfare à la Nordhaus-Tobin). Gosta Esping-Andersen has distinguished three different forms of development.[28] In the first (the "American" model), care is provided in the market by low-wage labour; this is associated with a high level of female labour force participation (and two-earner families) and a large share of employment in the service sector. In the second ("Scandinavian" model), care is provided by the state, at government regulated wages, associated with a high level of public sector employment and fiscal pressures. Again there is a high level of female participation and of two-earner families. In the third ("(mainland) European" model), care is provided by the family, and there is smaller service sector employment. This model is associated with a lower level of

labour force participation by women, and reliance of the family on the male breadwinner. Which path is followed can make a considerable difference to economic performance as conventionally measured.

6 The Challenge for Economics

In this Paper, I have tried to demonstrate two propositions. The first is that economics can say useful things about the economic impact of the Welfare State. To a degree, these conclusions are negative, drawing attention to what *cannot* be said. We cannot just treat the Welfare State as an aggregate. Different programmes have different effects. Their influence on the working of the economy may take subtle forms. The general presumption that the Welfare State must adversely affect economic performance often reflects a particular point of departure, rooted in a view of a first-best economy functioning according to the textbook competitive equilibrium. Different points of departure, reflecting the concerns of new Keynesian macro-economics, developments in general equilibrium theory, and the determinants of long-run growth, may lead to different views of the impact of the Welfare State.

As Josh Billings said, "it ain't that people don't know, but they know so much that ain't so". An important function of economics is to say "what ain't necessarily so". But there are also conclusions in which we can have some confidence. These are perhaps less appealing to headline writers, but are none the less useful. To give just one example, in designing unemployment compensation we need to distinguish carefully between unemployment insurance and unemployment assistance, the latter but not the former affecting the work decisions of partners.

My second proposition is that we have a great deal to learn. I have tried to indicate the ways in which some of the advances in economics research of the past two decades are indeed relevant. The list is impressive, including micro-econometrics, new Keynesian macro-economics and the theory of incomplete markets, growth theory, and the concept of capabilities. But there is a lot that we do not understand, and many areas in which research needs to be developed. There are important challenges to economists in understanding the Welfare State.

1. Social transfers include both social security (such as OASDI, workers' compensation and unemployment compensation) and welfare. I am not discussing expenditure on health care, but transfers include sickness and disability benefits and I later discuss insurance for long term personal care.

2. World Bank, *Averting the Old Age Crisis* , 1994, International Bank for Reconstruction and Development, Washington, D.C.

3. Robert H. Haveman, *Does the Welfare State Increase Welfare?*, 1985, H E Stenfert Kroesey BY, Leiden, p. 8.

4. I have discussed this side of the balance sheet elsewhere, most recently in *Incomes and the Welfare State*, 1995, Cambridge University Press, Cambridge.

5. M Abramovitz, "Welfare quandaries and productivity concerns", *American Economic Review*, 1981, vol 71, 1-17.

6. A Lindbeck, P Molander, T Persson, O Peterson, A Sandmo, B Swedenborg, and N Thygesen, *Turning Sweden Around*, 1994, MIT Press, Cambridge, p 17. For an account of the development of the thinking of Scandinavian economists about the Welfare State, see A Sandmo, "Economists and the Welfare State", *European Economic Review*, vol 35, 213-239, in which he urges the need for a balanced view.

7. A B Atkinson, "The Welfare State and Economic Performance", *National Tax Journal*, 1995, vol 47, 171-198.

8. R M Solow, "Perspectives on growth theory", *Journal of Economic Perspectives*, Winter 1994, vol 8, p 51.

9. See, for a review of the empirical evidence, A B Atkinson and J Micklewright, "Unemployment compensation and labor market transitions: a critical review", *Journal of Economic Literature*, 1991, vol 29, 1679-1727. The unemployment bonus experiments are reviewed by B D Meyer,

"Lessons from the U.S. Unemployment Insurance Experiments", *Journal of Economic Literature*, 1995, vol 33, 91-131.

10. In practice, the benefit may be more complicated, with a certain amount of income disregarded, but with receipt subject to an assets test.

11. S E Harris, *Economics of Social Security*, 1941, McGraw-Hill, New York.

12. A T Peacock, *The Economics of National Insurance*, 1952, Hodge, Edinburgh, p 51.

13. Sir William (later Lord) Beveridge, *Full Employment in a Free Society*, 1944, Allen and Unwin, London, and *Social Insurance and Allied Services*, 1942, HMSO, London.

14. See, for instance, Arthur F Burns' Presidential Address "Progress towards economic stability", *American Economic Review*, 1960, vol 50, 1-19.

15. And the earlier assessments may have been over-optimistic. Paul Samuelson recalls that

> "When I was a young student of what was to come to be known as macroeconomics, we all took for granted that F.D.R.'s new expenditures on welfare and unemployment compensation would have to last only so long as the economy remained significantly below it's full employment potential."

(P A Samuelson, "The public role in the modern American economy", in M Feldstein, editor, *The American Economy in Transition*, 1980, University of Chicago Press, Chicago.)

16. B Greenwald and J E Stiglitz, "New and old Keynesians", *Journal of Economic Perspectives*, Winter 1993, vol 7, 23-44.

17. For discussion of this kind of model, see D Gale, "Competitive models with Keynesian features", *Economic Journal*, 1983, Supplement, 17-33 and C P Thomas, "The role of fiscal policy in an incomplete markets framework", *Review of Economic Studies*, vol 62, 449-468.

18. H W Sinn has treated the risk-sharing properties of the Welfare Stat
in a different model but in a similar spirit. As he notes at the onset,

> "Economists have learned so much about the Laffer curve, Leviathan, and a myriad of disincentive effects brought about by government intervention that they have lost sight of the allocative advantages of the welfare state" ("A theory of the welfare state", 1994 NBER Working Paper No 4856, Cambridge, Mass.).

A more general review of the efficiency function of the Welfare State i provided by N A Barr, "Economic Theory and the Welfare state: A surve and Interpretation", *Journal of Economic Literature*, vol 30, 741-803.

19. The model is described in A B Atkinson, "what has happened to th macro-economic theory of distribution?", Caffe Lectures, 1994, whic draws on the work of E Penrose, *The Theory of Growth of the Firm*, 1959 Blackwell, Oxford, R L Marris, *The Economic Theory of 'Managerial Capitalism*, 1964, Macmillian, London, and H Uzawa, "Time preferenc and the Penrose effect in a two-case model of economic growth", *Journal o Political Economy*, 1969, vol 77, 628-652.

20. R Goode, chairman, *Pension Law Reform*, 1993, HMSO, London, 159. I was a member of the Pension Law Review Committee, but did no write this passage!

21. S Bond, L Chennells, and M Devereux, Institute for Fiscal Studies 1995.

22. There are clearly major problems in valuing informal care: see S F Nuttall et al, "Financing long-Term care in Great Britain", *Journal of th Institute of Actuaries*, (1994), vol, 1-53.

23. H Rothgang and W Schmahl, "The long-term costs of public long-ter insurance care in Germany", Centre for Social Policy Research Workin Paper 9/95, University of Bremen.

24. A Sen, *Commodities and Capabilities*, 1985, North-Holland, Amsterdam pp 9-10.

25. Nuttall et al, p 3.

26. G S Becker, A *Treatise on the Family*, 1981, Harvard University Press, Cambridge, Mass., and B D Bernheim, A Shleifer, and L H Summers, "The Strategic Bequest Motive", *Journal of Political Economy*, 1985, vol 93, 1045-1076.

27. C Gordon, "The Myth of Family Care", *Ageing and Society*, 1988, vol 8.

28. G Esping-Andersen, "Europe's welfare states at the end of the century", to be published by Oxford University Press in a book edited by R Erikson.

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