Laudatio by Professor Lord Skidelsky on the award of the PhD honoris causa in Economics to Professor Joseph E. Stiglitz

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I am honoured to have been asked to deliver the laudatio on the occasion of the award by Sant'Anna University of a doctorate honoris causa to Joseph Stiglitz. It's a daunting task because of the scope and importance of Stiglitz's many contributions to economic theory and public policy. But I shall try, in the time I have, to outline the main trunk of his work, as I see it, setting it in the context of his times.

Joseph Stiglitz was born on 9 February 1943 in Gary, Indiana. His father an insurance broker, his mother a school teacher. The family were Democrat-leaning. What he calls 'intense political discussions' round the family table no doubt gave him his taste for argument, and resistance to dogmatism. This Socratic atmosphere was reinforced at Amherst, a liberal arts college, where he first studied economics. Asking the right question was more important than getting the right answer - a lesson to all economists who study fantasies of their own making.

The American political scene at the time was dominated by the start of the civil rights movement and Lyndon Johnson's anti-poverty programmes designed to improve the position especially of Black Americans. The great themes of Stiglitz's economics, and source of his radicalism, are thus not the existence of general unemployment which gave rise to the Keynesian revolution, but the problem of what used to be called 'poverty in the midst of plenty'. His starting point was microeconomic, not macroeconomic.

Joe Stiglitz marched with Martin Luther King in the 1960s. He left Amherst without a first degree to pursue a doctorate in economics at MIT on the relationship between economic growth and income distribution. Post-doctoral work followed at Cambridge University UK on a Fulbright Scholarship, where he famously clashed with Joan Robinson, whose opinion of American economics was never high. His main academic homes were Stanford from 1988-2001 and Columbia University since then. He received a Nobel Prize in Economics in 2001.

The crucial contexts for Stiglitz's work were the breakdown of Keynesian economics in the 1970s and the collapse of the Soviet Union in the 1980s. From this political economy perspective, Stiglitz's economics may be seen as a theoretical attempt to justify a political middle way between rampant *laissez-faire* capitalism and collapsing state socialism.

In his Lectures on Macroeconomics, in 1976, Stiglitz argued that the Keynesian consensus of the 1950s and 1960s had disintegrated partly because of lack of secure microfoundations. The issue was not whether unemployment was voluntary or involuntary, but why some prices – notably wages – change more slowly than others. For this it was not enough to posit *ad hoc* institutional rigidities; one needed 'information theoretic' reasons. This thought introduces the main thrust of Stiglitz's work .

How much do people know about their situations or the future in making their decisions? Between the omniscience of the neoclassical school and the radical uncertainty of Keynes was a vast field of imperfect information waiting to be analysed and modelled. This was the field Stiglitz made his own.

He was awarded the Nobel Prize in Economics in 2001 for his 'pioneering contributions... to the theory of markets with asymmetric information', which 'transformed the way economists think about the functioning of markets' and 'gave [them] tools for analysing a broad spectrum of issues'.

Stiglitz was awarded the Prize with George Akerlof and A. Michael Spence. Each of the three originated different lines of thought in the field. Akerlof's work showed how information asymmetries can lead to adverse selection —the textbook example being the market for lemons. Spence developed the idea of signalling — where informed parties can make choices to transmit information about themselves to the uninformed party.

Stiglitz, for his part, pioneered the theory of *screening*, most famously in his seminal paper with Rothschild *Equilibrium in Competitive Insurance Market* (1976) The idea behind screening is that poorly informed agents can glean information about an informed party by offering them a range of contracts and observing which one they pick. In his example of an insurance market with risky and safe customers, Stiglitz shows that there is no 'pooling equilibrium' whereby insurance firms offer everyone the same contract. There can only be a 'separating equilibrium', in which firms offer a pair of contracts and each type picks the appropriate contract for their riskiness. Now, the concepts of screening and pooling versus separating equilibrium are commonplace tools in economic analysis.

Stiglitz's contribution to economic theory ranges far beyond this. His more recent work on agent-based models exemplifies the continually questioning nature of his mind But here, I would just highlight three prominent examples of how he has applied the theory of asymmetric information to important problems in applied economics.

First, information is key in understanding credit rationing. Standard theory assumes that if the demand for loans exceeds supply, lenders will raise interest rates. Stiglitz and Weiss (1981, 1983) point out that lenders do not know which borrowers are risky and which are not, but borrowers do. Raising the interest rate will price more sensible borrowers out of the market, and leave only cowboy borrowers who are willing to risk a default - which will be borne by the bank - in order to win if everything goes well for them. The rational response, then, is credit rationing by lenders. This shifts the focus for monetary theory and policy from the interest rate which 'balances' credit markets to the supply of credit itself. More broadly, his theories of credit and equity rationing bring to light the importance of cash flow constraints, with important implications for how one treats financial crises.

Second, education is popularly regarded as a magic bullet for economic development: it is seen to increase 'human capital', which both causes growth and explains the higher wages paid to the educated. Information economics does not deny that education can form human capital, but suggests that much of the private payoff from education might come from 'signalling' – a better degree does not increase the productivity of a given worker, but rather sends the message to potential employers that he is able. In other words, just because educated workers are paid well does not mean that the education increased that worker's productivity. This has relevance in a variety of contexts, perhaps most in developing countries, where overinvesting in education will be a poor use of public funds when there are other pressing needs to be addressed.

Finally, the Shapiro-Stiglitz model (1984) explains why wages cannot be sufficiently flexible to maintain continuous full employment. Informational constraints enter because no employer can perfectly monitor the effort of their employees. If all employers offered the same wage, and there was no unemployment, employees would have no incentive not to

shirk, no matter how good the monitoring was, as they could easily find another job. By raising wages above market-clearing levels, an employer creates an incentive to not shirk, as the worker would not find such good pay elsewhere. Other employers follow and this reduces demand for labour, leaving a pool of unemployed workers who would be willing to work for lower ages but can't get a job. This offers an 'information theoretic' explanation of involuntary unemployment, which is quite Marxist in showing how an employer-employee capitalist system requires a 'reserve army of the unemployed' to maintain the productivity of its workforce.

In each of these cases, Stiglitz was able to demonstrate how asymmetric information between parties fundamentally changed the activity. His body of work has questioned the competitive equilibrium paradigm by demonstrating the tendency of imperfect information either to produce sup-optimal equilibria, or none at all. It has had important implications for public policy.

Under the last, I would particularly single out his essay on The Economic Role of the State, dating from 1989, in which Stiglitz made the economic argument for the state's role in allocation and redistribution. The traditional approach to welfare economics was to establish a set of conditions whereby markets lead to Pareto-efficiency, and then identify 'market failures' – public goods, externalities, monopoly. But Greenwald and Stiglitz (1986) showed that this was to start at the wrong end. It is wrong to say markets work in the absence of market failure. One should turn the problem round: markets always fail, the question is, given that the state too suffers from incomplete information, whether, to what extent, and in what areas the state can improve on market outcomes.

Stiglitz's theoretical achievements have been the basis of his role as a policy-maker and activist. Not only have they equipped him with the tools to push economic theorists towards 'real world' problems, but they have also given him the credibility necessary to become one of the most blistering critics of poor economic policy.

Much of his recent non-technical work has been directed to castigating the laissez-faire approach to globalization. In developing his critique, he was heavily influenced by his experience as chief economist of the World Bank in the 1990s. This convinced him that Washington-inspired policies to promote economic development in poor countries were, in fact, hindering it. He was particularly outraged by the response of the International Monetary Fund during the East Asian meltdown in 1997–1998, which, he said, through its poorly conceived bailout efforts, turned slowdowns into recessions, and recessions into depressions. His public criticisms are said to have led to his removal from the World Bank in 2000 at the behest of then US Treasury Secretary Lawrence Summers.

His main purpose in a series of popular books was not to attack globalization as such, but to reform its working so as to stop rich countries from exploiting poor countries. He has brought to this quest a missionary fervour, rooted in the same impassioned desire to do good which led him to march with Martin Luther King in 1963. The 'rules of the game,' in his view, have been largely set by US corporate interests. Trade agreements have made the poorest worse off and condemned thousands to death through AIDS. Multinational corporations have stripped poor countries of their natural resources and left environmental devastation. Western banks have burdened poor countries with unsustainable debt. Of a piece with Stiglitz's other work has been his emphasis on asymmetric knowledge as a source of power, and the nature of the reforms and the need to emphasise information flows to redressing the bargaining imbalance between rich and poor countries.

How can I sum up his contribution? In theory, Stiglitz's distinctive method is not to attack orthodox theory frontally, but to use the tools of orthodoxy to undermine orthodox conclusions. In his view, the premises of neoclassical theory can be made sufficiently elastic to evade its conservative conclusions for policy. The task then is to wrest control of theory from reactionary economists. Hence his close association with INET -the Institute for New Economic Thinking -set up with a grant from George Soros.

This, I should add, is the characteristic New Keynesian approach. Unlike Keynes, Stiglitz has set himself the task not of overthrowing reigning theory, but of enlarging its radical potential by developing models under its umbrella capable of explaining particular problems of pressing social importance. He is not a grand theorist, but the theorist of ambiguous situations.

A radical, not extremist cast of mind also informs Stiglitz's policy advocacy. He rejects claims of omniscience, whether of the central planner or the market fundamentalist. In his political life he is a classical social democrat.

He has been an inspiration to all those who have sought to make economics more fit for the only purpose for which it exists, which is to improve the human condition.

The question which, for me, remains unanswered is whether the economics of information, for which Joe Stiglitz is rightly honoured, can carry the burden of explanation and hope placed on it. Much hinges on the answer one gives to this question.

A laudation is a eulogy, a panegyric. So, Rectors, ladies and gentlemen, let me end my eulogy by praising the outstanding performance in the field of economics of Joseph Eugene Stiglitz.