



This project is funded by the European Union under
the 7th Research Framework programme (theme SSH)
Grant Agreement nr 266800



FESSUD

FINANCIALISATION, ECONOMY, SOCIETY AND SUSTAINABLE
DEVELOPMENT

Working Paper Series

No 1

Integrating economics with the other human (and
related) sciences: some initial considerations

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Abstract:

This paper addresses the scope and possibilities for integrating economics with other human and social sciences. It identifies and discusses two competing ways to achieve integration: a perspective based on the expansion of neoclassical economics and another approach that aims to build on the contribution of heterodox economics. The paper sees greater merit in the second of these two approaches and advocates the renewal of a broader political economy perspective in achieving an interdisciplinary economics. Other perspectives from within economic sociology are discussed and broader reflections are drawn on the obstacles and opportunities for pursuing interdisciplinary research in economics.

Keywords: economics, heterodox economics, political economy, economic sociology, interdisciplinary research

Journal of Economic Literature classifications: A12, B5, Z13

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Acknowledgments: I am very grateful for the comments of Andrew Brown, Gary Dymski, Ben Fine, Giuseppe Fontana, Annina Kaltenbrunner, Marco Passarella, Ana Cordeiro Santos, and Malcolm Sawyer on earlier versions of this paper. Remaining errors are my responsibility. The research leading to these results has received



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the 7th Research Framework programme (theme SSH)
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funding from the European Union Seventh Framework Programme (FP7/2007-2013)
under Grant Agreement n° 266800.

Web site: www.fessud.eu

1. Introduction

Economics has changed in the last few decades, branching out into new areas of research and encroaching on to the terrain of other disciplines and subjects. The changes that have occurred in economics research have been given added significance and prominence by the financial crisis that began in 2007. As in previous crisis periods such as in the 1970s, economics has come under critical scrutiny both externally and internally.¹ On the one hand, economists have been criticised by the media and the wider public for not foreseeing the financial crisis and for not having an adequate understanding of the ways to restore financial and economic stability. They have also been accused of contributing to the financial crisis itself. By proffering a theory and ideology that financial markets are 'efficient' and thereby stable and predictable, the discipline has been accused of encouraging excessive risk taking behaviour as well as deregulation policies that many observers blame for the financial crisis.² On the other hand, economists have had to confront the limitations of their own established theories and ideas and to contemplate, if not always necessarily pursue, new avenues of research that extend or go beyond some existing agendas. Prominent figures from within the economics profession have called for economics to be revised and to be developed along a new path.³

Yet, even long before the financial crisis, economics was undergoing some important changes. A number of conventional economic ideas such as those of efficient markets and perfect rationality on the part of individuals had been subject to direct criticism by increasing numbers of economists. Beginning in the 1970s and continuing through to the present, economists have pioneered research based on ideas of imperfect markets and non-rational forms of behaviour that directly challenges orthodox neoclassical economics. This research has become associated with perspectives such as information-theoretic economics and behavioural economics that have attracted much attention both within and outside economics.

These perspectives, significantly, have tackled themes and ideas covered by other human and social sciences (e.g. psychology, sociology, business studies, and political science). They have, in turn, provided a platform for economics to extend its reach and potential influence within other human and social sciences.

Other economists, drawing on a long-established tradition within political economy and heterodox economics, have continued to push for change in economic thinking, though in a way that differs markedly from perspectives such as information-theoretic economics and behavioural economics. Heterodox economics spans a variety of approaches including 'old' institutional economics, post-Keynesian economics, feminist economics, Austrian economics, and Marxian economics. These diverse and sometimes conflicting perspectives have for many years offered an approach to economics that situates the economy in a broader social, historical, and political context. They have by their nature and often by their design sought to develop links with other human and social sciences and to push economics in a more interdisciplinary direction.

The financial crisis initially created some space for heterodox economists to get their ideas heard, albeit this space was tightly limited and was quick to disappear. In the immediate aftermath of the financial crisis, governments in several major economies were obliged and indeed forced to adopt non-conventional economic policies such as expansionary fiscal policy and nationalisation, which produced some opportunities for the promulgation of heterodox economic ideas. The ideas of Keynes, Minsky, and even Marx, were incorporated into debates about the nature, causes, and ways out of the financial crisis.⁴ In a short space of time, however, governments around the world have reverted to more conventional policies based on the need for balanced budgets and market liberalisation and de-regulation reforms; note, for example, the move by governments in EU countries to implement 'austerity' measures in spite of rising unemployment and lower growth rates. These policies

have once again drawn strength from orthodox versions of economic theory and have contradicted the policy advice of heterodox economics. As far as academic economics is concerned, heterodox economic ideas have failed to gain any ground and have remained very much on the side-lines. This is in spite of the failure of conventional economic thinking to account for, let alone understand, the occurrence of the financial crisis. While mainstream economics has continued to adapt itself in various ways and has sought to bring in ideas from other social sciences, as discussed below, it has done so without the aid or input of heterodox economics.

Given the above as background, the aim of this paper is to consider how and in what ways economics can be integrated with other human and social sciences and rendered as interdisciplinary. Reflecting the broader goals of FESSUD, it is argued that an interdisciplinary economics is needed to understand better the nature and evolution of the financial system and the economy more generally. The discussion in this paper offers a foundation for other work on the theme of interdisciplinary research that is covered by the FESSUD project.

As discussed below, there are at least two main ways of making economics interdisciplinary. Firstly, there is the view that economics can be made interdisciplinary by modifying or replacing a few assumptions of orthodox neoclassical economics. This view characterises perspectives such as information-theoretic economics and behavioural economics. These perspectives replace the assumptions of perfect information and perfect rationality, but at the same time retain other aspects of neoclassical economics (e.g. the concept of individual optimising behaviour and methodological individualism). They also draw on other social sciences in a manner that fits with the framework of neoclassical economics: for example, the psychological and social dimensions are incorporated into the utility maximisation model. Interdisciplinary research is then pursued with a view to extending rather than jettisoning neoclassical economics. On the other hand, there

is the view that economics can become interdisciplinary only by breaking with neoclassical economics and instead reviving and developing insights drawn from the political economy and heterodox economics tradition. Perspectives allied to 'old' institutional economics, post-Keynesian economics, feminist economics, Austrian economics, and Marxian economics tend to take this second position. In methodological as well as conceptual terms, heterodox economics is more amenable to integration with other human and social sciences: for example, it rejects a purely individualistic approach and instead focuses on the social and the historical. It also accommodates and encourages the use of different methods (unlike much orthodox economic theorising, it is not bound to some version of positivism) and more generally is prepared to transcend rather than defend pre-existing disciplinary boundaries. The paper will consider the two broad approaches outlined above. It will be argued that a broader political economy approach based on ideas taken from heterodox economics is best placed to integrate economics with other human and social sciences and should be adopted and promoted instead of an expanded and imperialistic neoclassical economics. The sections that follow will interface with research covered in other parts of WP2, especially Tasks 2 and 4, and in the FESSUD project more generally.⁵

The paper is organised as follows. Section two outlines how economics became separated from the other human and social sciences. This separation, as we will see below, arose as a result of the emergence and rise of neoclassical economics. The third section discusses the ways in which modern mainstream economics has sought to reclaim ground in the other human and social sciences by embracing ideas of imperfect information and bounded rationality. Section four discusses the contribution of heterodox economics especially in relation to its capacity to facilitate and promote interdisciplinary research. Section five examines the recent growth of research on economic relations and processes as well as on economics itself within some other social sciences. Section six concludes.

2. Out on a limb: how (neoclassical) economics set itself adrift from the other social sciences

2.1. Historical context

The history of economic thought reveals that at one time economic enquiry was relatively variegated and open to insights from what are now regarded as distinct and separable areas of study. Classical economics beginning with Adam Smith and continuing through to David Ricardo and J.S. Mill was more 'political economy' than economics, in the sense that it offered a holistic and pluralistic approach to the study of the economy and the social and political relations therein (see Milonakis and Fine, 2009, ch.3). When Adam Smith did 'economics', he did not abstract from society, history, and polity, but rather factored them into his explanation of how the economy works and evolves. His approach to economic enquiry, by modern standards, was interdisciplinary, bringing together social, historical, and political material. Although a strong critic of classical economics, Karl Marx shared with the classical economists a desire to develop and promote an integrated analysis of the (capitalist) economy. In classical economics as well as in Marx's political economy, there was no attempt to uphold a separate field of economics; instead, economics was fused with other areas of social research and was regarded as an encompassing and integrated science.

The nature and scope of economic theory and discourse, however, was transformed from the late nineteenth century onwards. The classical economics tradition was challenged and eventually displaced by what has since become known as neoclassical economics.⁶ The so-called 'marginalist revolution' of the 1870s set the foundations for economics as a separate discipline and ultimately established the basis for the fragmentation of the social sciences (see Milonakis and Fine, 2009; Fine

and Milonakis, 2009). Three important changes can be focused upon. The first is the narrowing in the subject matter of economics. Classical economics was relatively expansive in nature dealing with such 'big' issues as the determinants of economic growth and the distribution of income between classes in society. Neoclassical economics as it emerged after the 1870s, by contrast, was concerned with more narrow issues relating to the interaction of market supply and demand. The economy was treated as though it existed as a myriad of market relations. With economics defined more narrowly, it was deemed less necessary and less important to study how the economy is embedded in society and shaped by history.⁷ Second, from a methodological perspective, neoclassical economics heralded a switch in focus towards the examination of the individual, defined narrowly as a 'utility maximising agent'. This had the direct effect of removing from economics any direct consideration of classes. Economics instead saw the economy as populated by individuals each with their own given preferences and given propensities to maximise utility. Third, neoclassical economics introduced into economic theory a more formal and abstract method. Instead of seeking inspiration in the work of their predecessors, neoclassical economists looked to ape their counterparts in the physical and natural sciences. 'Rigour' in economics came to be equated with model-building and the use of mathematical methods such as calculus.⁸

Admittedly, there were some early efforts to retain the broader perspective of classical economics. Alfred Marshall, for example, referred to the dangers of excessive formalism in economics. His *Principles*, first published in 1890, demonstrated the worth and importance of an economics that is grounded in real-world observation. Yet, the legacy of Marshall was ultimately to push economics down a narrow track. Marshall helped to establish the technical framework of neoclassical economics that was ultimately to prevail in debate and his contribution like that of other early neoclassical economists was to distance economics both from classical economics and from other social sciences. In Marshall's case, this may

have been an unintended consequence, but it is an outcome to which he partly contributed.

The emergence of neoclassical economics had implications for research in other social sciences. In effect, after the marginalist revolution, other social sciences became constituted as separate disciplines, largely cut off from economics. Sociology, for example, took on the task of examining the social, where the latter had become neglected in economic theory. In practice, it did something more specific than this. That is, sociology provided an explanation of the realm of the non-rational, encompassing such phenomenon as norms, customs, and traditions. The distinction between economics and sociology then turned on the fact that the former studied 'rational behaviour' specifically in the context of the market whereas the latter studied all forms of non-rational behaviour including potentially within the market.⁹ Politics similarly developed to explain the arena of the political, and once abandoned by neoclassical economics, the study of economic history became the province of the discipline of history (Hodgson, 2001; Milonakis and Fine, 2009).

Such a division of academic labour would not have been recognised or countenanced by the classical economists. Indeed, it was not necessary at the time of classical economics, since as mentioned above, the latter attempted to study the economy in the context of a wider understanding of society, history, and polity. With the development of neoclassical economics, however, the separation of disciplines in the social sciences became inevitable and necessary. In fact, there was an acceptance of this separation as the only way in which research in the social sciences could be conducted and taken forward. Talcott Parsons, as a leading early figure in the sociology discipline, was apparently content to accept the division between economics (as the study of rational behaviour) and sociology (as the study of non-rational behaviour). He was willing to allow neoclassical economists to study the economic in the way that they preferred and was seemingly unwilling to endorse the

criticisms of neoclassical economics provided by institutional economists (Camic, 1992; Hodgson, 2001). Parsons' stance on these matters has been argued by critics to have held back the development of a separate sociology of economic behaviour (Swedberg and Granovetter 1992; Velthuis 1999; for a dissenting view on this point, see Gould, 1991; Holmwood, 2006). To be sure, leading figures such as Schumpeter and Weber attempted to bridge the divide between economics and sociology in the interwar period by promoting a version of 'social economics'. Their efforts at synthesis, however, proved unsuccessful (see Milonakis and Fine, 2009, ch.11). Economics and sociology in the early twentieth century became seen and actually existed as distinct and autonomous members of the social science family. To this extent, any effort to move economics and sociology closer together was doomed to failure.

2.2. The initial push to expand the boundaries of economics

Having established itself in economics and placed itself in a position of relative isolation in the social sciences, neoclassical economics was faced with the task of developing and honing its core theoretical framework. This it did in several different ways. In the 1930s, it formalised its analysis of value via the embrace of an ordinal definition of utility and via the adoption of concepts such indifference curves. In the immediate post-war period, it developed a general equilibrium framework that ratcheted up the mathematical content of economic theory. But neoclassical economics also increasingly acquired ambitions to expand its boundaries. Not content just to dominate economics debates, neoclassical economics was seen to be important and relevant enough to influence and shape debates in other social sciences.

Let us be clear that neoclassical economics has always retained the potential to expand its range of application. Neoclassical economics almost from the outset has

been defined by a set of concepts and a method that have a general range of application. The neoclassical paradigm makes assumptions about the rational choice of individuals and based on these assumptions advances theories that explain the efficiency of the price mechanism. Its main focus is on individual rational choice in the market but there is nothing to stop the application of the idea of individual rational choice to non-market settings. If an individual makes rational choices and maximises utility in buying goods and service in the market, why does he or she not also make rational choices and maximise utility when pursuing education, getting married, or having a family? If these non-market choices are modelled as though they are made in a market, they are very much open to the analysis of neoclassical economics.

Yet, it was only in the post war period that efforts were made to extend the purview of neoclassical economics in the above manner. Before this point, neoclassical economists were content to address rational choices in the market and to leave the study of behaviour in non-market settings to their counterparts in other social sciences. In the period up to the Second World War, the economics profession were generally willing to accept that there was a limit to the nature and scope of economics and that the division between the social sciences needed to be upheld as opposed to breached. Sociologists and other social scientists, in turn, were happy to occupy the ground that had been vacated by economics and to avoid incursions into the territory of economics. To this extent, the social sciences continued to exist and evolve in separation from one another.

The expansion of neoclassical economics on to new terrain began in the 1950s. This process of expansion owed much to developments that occurred in the 1930s. During the interwar period, economics developed a more expansive definition as the 'science of choice'. Lionel Robbins (1932) whose famous 'scarcity' definition of economics has been adopted in standard economic theory set the stage for a new

phase in economics in which the other social sciences became targets for 'colonisation' by an imperialistic economics. Robbins inspired a vision of economics in which a plethora of phenomena, including within non-market settings, could be explained on the basis of rational choice.

The name of Gary Becker stands out in any discussion of the broadening in the application of neoclassical ideas and concepts to the non-market sphere. Since the 1950s, Becker has applied his 'economic approach' to a wide variety of topics from education and crime through to marriage and fertility (see e.g. Becker, 1993). He has held firm to certain basic ideas such as individual rationality, utility maximisation, market equilibrium, and stable preferences. He has viewed these ideas as applicable to all kinds of human behaviour, regardless of whether they are directly connected to the purchase and sale of commodities. Becker has suggested that the boundaries between economics and the other social sciences should be regarded as open rather than closed and has sought to encroach directly on to the terrain of sociology and other disciplines using his own idiosyncratic approach to economic theorising. His efforts to extend economics have gained prominence not just in economics but also in other social sciences. Becker's key concept of 'human capital', for example, has become widely invoked and incorporated into debates on education and training across the social sciences. In sociology as well as in political science, there have also been efforts to forge rational choice approaches in the mould of Becker-type economics imperialism: for instance, Coleman (1990) has imported into sociology ideas of rational choice taken from Becker-inspired economics research.

At the same time, however, Becker has faced some difficulties winning acceptance for his theories beyond economics. Becker's 'economic approach' is marked by an attempt to treat non-market phenomenon as if it is a market: education, crime, marriage, and so on are turned into market-like domains of activity. Human behaviour is seen through the prism of rational choice and by a technical sleight-of-

hand the non-rational is converted into the rational. The reductionism and individualism of Becker's work has put off many social scientists (not to mention many economists) and has limited the ability of Becker and Becker-type research to gain ground outside of economics; though, as mentioned above, Becker-originated concepts such as human capital together with 'personal capital' and 'social capital' have entered the lexicon of some other social sciences, even if their meaning has been lost in translation, and there have also been some attempts to develop rational choice approaches within disciplines such as sociology and political science.

As reflected in the work of Becker, economics took on a much more formal character in the period immediately after 1945. The 'formalist revolution' as it has been called was characterised at one level by the greater use of mathematics and econometrics in economics research and at another level by the 'Americanisation' and homogenisation of the economic discipline (Blaug, 2003).¹⁰ These dual trends, which have remained strong in subsequent years, had two consequences. One was the wider separation of mainstream neoclassical economics, in theory and empirics, from the other social sciences. The language, theory, and results of economics research became interpretable mainly by those schooled in economics and became largely inaccessible to other social scientists. This fact, as shown above, did not prevent Becker and his followers from embarking on imperialistic expeditions into the domains of other social sciences; however, it meant that the results of these early attempts at economics imperialism were digestible mainly by economists and had relatively little impact outside of economics. The second consequence was the increasing narrowness of economics research itself. What could not be expressed in mathematical and econometric form was deemed as not 'proper economics' and was downgraded as a result. Such views on what economics is and what economists do was perpetuated and reinforced by the key journals, societies, and university departments of economics. This narrowing of the field of economics compounded the trend toward isolationism within economics or toward the idiosyncratic form of

economics imperialism pioneered and advocated by Becker. Needless to say, the above developments also created an environment that was more intolerant of the tradition of political economy and heterodox economics, a point taken up further below.

2.3. Summary

The point of this section is to show how economics, once construed as political economy and interdisciplinary in nature, became progressively narrower in its focus and range of application. This evolution was connected to the rise of neoclassical economics. But while economics became more narrowly defined with the inception and acceptance of the neoclassical paradigm, at the same time it retained the potential to branch out into other areas of social research given that its concepts and methods could be generalised and applied to a wide variety of phenomena. This potential, as was mentioned above, was slow to be realised and when Becker tried to extend the boundaries of economics he faced some challenges and indeed in places direct resistance. As we shall see below, a new phase of economics imperialism has emerged in the period since the 1970s.

3. Taking back lost ground: the attempted colonisation of the other social sciences by modern economics¹¹

3.1. Economics imperialism unleashed¹²

From the 1970s onwards, economics has adapted itself in a number of significant ways. These changes have affected not only the nature of economics research itself but also the relationship between economics and other social sciences. As a result of its recent evolution, economics has moved closer to the other social sciences. It has done so in a way that has retained core elements of neoclassical economics while at

the same excluding and marginalising the contribution and insights of alternative heterodox approaches in economics. As we shall also see below, modern attempts at economics imperialism have also proceeded with little regard for or tolerance of established debates outside of economics. Rather other social sciences have become viewed as more grist for the economics mill.

A noteworthy feature of modern economics is the attempt to relax and jettison a number of core assumptions made in orthodox neoclassical economics. On the one hand, there has been an abandonment of the assumption of perfect information. There is now a wide acceptance in economics that information is imperfect. The existence of imperfect information is seen to produce a myriad of market imperfections. These imperfections are in turn used to account for various social phenomena (e.g. institutions, norms, customs, etc.). 'New institutional economics', for example, employs the notion of imperfect information to rationalise the existence and evolution of collective institutions most notably firms. The treatment of the non-economic as a response to or outcome of imperfect information has become the hallmark of the new information-theoretic economics (inclusive of new institutional economics), which has been pioneered and promulgated by economists such as Akerlof and Stiglitz. On the other hand, there has been a move to relax the assumption of perfect rationality. Increasing numbers of economists now recognise that agents make decisions under conditions of 'bounded rationality'. The idea of bounded rationality in conjunction with the idea of imperfect information has been used to account for normative and other non-rational forms of behaviour. Bounded rationality, for instance, is a key aspect of the nascent field of behavioural economics that seeks to capture the complexity of individual decision-making (for a practical application of behavioural economics, see Akerlof and Shiller, 2009).¹³

To appreciate the importance of the above changes, consider the world as it exists under conditions of perfect information and perfect rationality. This is the world that

is depicted in orthodox neoclassical economics. In such a world, there is nothing to prevent all economic exchanges from taking place through the market. Private contracting is able to substitute for any kind of collective organisation since there is no limit to the possibility for writing and enforcing at zero cost complete contracts. In effect, the world of standard neoclassical economics is one in which markets are ubiquitous and collective organisations such as firms do not exist. Furthermore, there is the idea that interventions in the market will lead to (Pareto) inefficient outcomes and that the best of all possible worlds is achieved where markets are allowed to operate without limit or restriction. Ideologically, neoclassical economics supports and encourages reliance on the market and undermines more critical policy agendas that question markets and market-based ideologies.

The world of neoclassical economics is altered radically, however, once we introduce the notions of imperfect information and bounded rationality. In the absence of perfect information and perfect rationality, complete contracts no longer become possible to write and costless to enforce. Instead, there arise gaps and omissions in contracts due to imperfect information and bounded rationality. Problems of contract enforcement also arise where information is asymmetrically distributed between agents. Recognition of the limits to complete contracts in modern economics has given rise to several different theoretical innovations, ranging from new theories of the firm to new theories of finance. Firms, for example, have been theorised as the outcome of positive transaction costs that arise under conditions of imperfect information and bounded rationality (Williamson, 1985). Financial markets, rather than being viewed as necessarily efficient, instead are seen by some economists as prone to volatility and instability owing to the imperfect information and bounded rationality possessed by their participants (Akerlof and Shiller, 2009). In policy terms, the recognition of imperfect information and bounded rationality has provided a theoretical rationale for collective interventions to alter incentives, for

example, of credit ratings agencies, in order to improve economic and social outcomes and to avoid financial crises (Stiglitz, 2009).

The significance of the changes mentioned above is that they have opened up economics to a broader understanding of both economic and non-economic phenomena. Before the 1970s, as mentioned above, the most prominent effort to extend the boundaries of economics was provided by Becker. Since the 1970s, economists have been able to go beyond Becker by taking seriously the problems of imperfect information and bounded rationality. There is recognition that informational imperfections allied with bounded rationality give rise to various market imperfections which in turn explain many different economic and non-economic factors, structures, and outcomes. For example, herd behaviour in financial markets is seen as the outcome of imperfect information and bounded rationality. The existence of herd behaviour is then used to account for asset price bubbles and other forms of financial market volatility and instability (Akerlof and Shiller, 2009). In other applications, the idea of incomplete contracting is used to account for the internal governance and management of firms (Lazear and Shaw, 2007). Through exploration of informational problems and bounded rationality, modern economists have been able to extend their explanations of specific economic phenomenon (e.g. firms, financial markets) and to bring into their theories accounts of non-economic phenomena. To this extent, they have been given the opportunity to present and promote an economics that is more palatable to the other social sciences (Fine, 2002; Fine and Milonakis, 2009).

The attempt by economics to move on to the ground of the other social sciences, on the one hand, signals a weakness of orthodox neoclassical economics. That weakness relates to the fact that the latter is lacking in vital detail especially relating to understanding of the social realm and must reach out to other social sciences in order to extend and augment its theories. Yet, on the other hand, modern attempts

at economics imperialism also reveal an inner strength and resolve of neoclassical economics. In its turn to interdisciplinary research, modern economists have compromised only very marginally via the examination of market imperfections and have continued to adopt and apply many of the same tools from the neoclassical toolkit.

Consider the continuities in modern economics research. The new information-theoretic economics employs the technique of modelling individuals as utility maximising agents and also retains the core methods of formalism and econometrics. The concepts of utility and production functions are similarly used; however, the range of their application is extended, so, for example, utility maximising behaviour is seen to incorporate adherence to norms and relations of mutual respect (see, for example, Ellingsen and Johannesson, 2007). Behavioural economics takes into non-utility maximising behaviour but still adopts the same formal and individualistic framework as standard neoclassical economics. Information-theoretic economics, more specifically, deals with complex issues such as the management of personnel in organisations but via the use of the standard concepts of equilibrium, efficiency, and stable and unchanging preferences (see Lazear and Shaw, 2007). These continuities mean that the new research is a development *within* rather than against neoclassical economics and importantly allow such research to be reproduced and promulgated via mainstream economics journals, conferences, and societies.

In summary, the assumptions of imperfect information and bounded rationality have enabled economists to study anew non-economic phenomena. At the same time, they have been able to develop a richer understanding of economic phenomena, taking into account the influence of social, institutional, and normative factors in a way that goes far beyond the approach of Becker. It can be argued that without the assumptions of imperfect information and bounded rationality modern economists

would not have been able to make the same headway in the study of the economic and the social and would still be stuck in the Becker-type economics imperialism of treating the world as if it is a perfect market.

3.2. Questions of nature, scope, and impact

The modern phase of economic imperialism is noteworthy in several respects (see Fine, 2012). First, it is driven by its own internal logic. It proceeds by the wider application of a method and set of techniques that are seen as generally applicable. These extend from methodological individualism to notions of optimisation, efficiency, and equilibrium. Even where approaches appear as new and path-breaking, as argued above, they can usually be associated with one or more aspects of orthodox neoclassical economics. Second, economics imperialism by definition is about economics plundering other social sciences for material that can be used to extend its own range of application. The outcome of this is that debate is of a rather one-sided kind, with economics preaching the virtues of its own method and techniques to other social sciences. This seems to matter little to imperialists within economics, given their resolute commitment to the virtues of their own discipline. Third, the more that economics changes the more it appears to stay the same. The project of economics imperialism is about bringing into economics material that it previously left out and to this extent it involves re-crafting such material to fit the mould of (neoclassical) economics. New developments in economics research again retain the veneer of difference, but at their heart they retain their basis within neoclassical economics. We can mention here that matters of concern to heterodox economics around the study of issues of power and conflict are not taken into account in research associated with economics imperialism, an issue we will return to below.

The point is that even with the recent changes in its subject matter the discipline of economics remains largely intact. It can be noted that to get published in leading economics journals still requires adherence to a basic method and a set of techniques; the same goes for gaining a PhD in economics from any leading economics department. The acceptance of the ideas of imperfect information and bounded rationality may have extended the scope of the economics discipline but it has not altered the method and concepts deployed by economists in academic research. It has also not fundamentally changed the standards by which economists and economics research are judged.

What about the potential impact of economics imperialism? Has it or can it transform the other social sciences? Among advocates of economics imperialism, there is some confidence that it can succeed. Lazear (2000, p.99), to take one prominent example, claims that economics has the capacity to improve the other social sciences owing to its 'rigour' and basis in 'science'. Economics is seen as 'the premier social science', whereas other social sciences are perceived as non-rigorous and non-scientific. The argument is that by dint of its alleged superiority economics is or will win over the other social sciences and other social scientists should accept this fact. Specifically, for Lazear, economics imperialism marks the best and indeed only way forward in interdisciplinary research within the social sciences.

The above argument can be disputed (see Fine, 2002). The view of rigour and science that is promoted by Lazear is not just idiosyncratic but also objectionable to many social scientists. The focus on individual maximising behaviour and the reliance on formal modelling and methodological individualism create a barrier to the development of a realistic understanding of social as well as economic phenomena. Many social scientists, for this very reason, are likely to resist rather than embrace the project of economics imperialism.

When faced with economics, other social scientists confront an esoteric and moribund orthodoxy on the one hand and an apparently open and interdisciplinary 'new mainstream economics' on the other. Approaches such as information-theoretic economics and behavioural economics appear to take seriously the realm of the social and to offer a broader and more realistic understanding of the economy. Other perspectives ranging from experimental economics through happiness economics to neuroeconomics add to the impression that economics has opened up to other social sciences. In policy terms, the above approaches and perspectives also offer support to reforms aimed at taming the market and thus complement opposition to neo-liberalism that exists within some other social sciences. Stiglitz (2009), as a representative of the new mainstream in economics, has argued against some neo-liberal policies using ideas and theories that recognise the existence of imperfect information and bounded rationality. Stressing the importance of non-economic influences on behaviour and reconstructing Keynes's original idea of 'animal spirits', Akerlof and Shiller (2009) also call for the reform of financial institutions to ensure a better functioning and stable economy. Faced with such developments, other social scientists may see economics as changed for the better and as worthy of acceptance.

Two points can be made here. One is that economics indeed has changed in ways that are more accommodating of other social sciences that are themselves turning increasingly to the study of the economic and also often of economics. But its bias towards a particular method and the idiosyncratic nature of its theories inhibits its acceptance in other areas of social research. The wider point is that other social scientists need to be aware of how economics has adapted itself and to be aware of the continuities with past economics research. Debating the nature and limitations of contemporary economics research could then provide a useful portal into a more general discussion about alternative ways to achieve an interdisciplinary economics

that does not rely on the use and application of a method and set of techniques derived from neoclassical economics.

The second point is that there is an economics beyond economics imperialism: this economics is associated with political economy and heterodox economics. The problem is that, with the way that economics is presently constituted, there is little space for the promulgation and more basically reproduction of heterodox economic ideas. Economics may be now more open to ideas of imperfect information and bounded rationality, but it continues to remain largely intolerant of heterodox economic approaches. Nonetheless, there is the possibility that with an increased dialogue between the social sciences over the nature and role of the economic as well as economics this state of affairs can be challenged and potentially reversed, allowing greater room for heterodox economists to communicate their ideas to other social scientists. Ironically, economics imperialism, as it meets its own limits, could provide an opportunity for heterodox economics to make inroads into the other social sciences. Certainly, as argued below, heterodox economics has much to offer both in the way of developing an understanding of economic relations and processes and in respect of promoting interdisciplinary forms of research that include economics in a way that is different from economics imperialism.

3.3. Summary

Modern examples of economics imperialism, in summary, have the potential to succeed – success would be seen here as the capacity to impact on debates outside economics – but also face some obstacles to progress. On the one hand, as noted above, the project of economics imperialism has coincided with an increased demand from other social sciences for critical analysis of the economic and of economics as a discipline. The emergence of an apparently more critical and less market orientated economics, with the capacity to address wider social phenomena,

has facilitated the movement of economics on to new analytical terrain. Yet, on the other hand, the economics imperialism project is likely to elicit a negative response from many social scientists. The individualism and reductionism of economic theories remains a barrier to their wider acceptance, especially in areas of research where commitment to post-modernism on the one hand and political economy on the other hand is strongest. What are the alternatives to economics imperialism? How might economics be rendered more interdisciplinary without the retention of the individualistic and formalistic baggage of neoclassical economics? These questions are answered in the next section by reference to and promotion of perspectives drawn from the political economy and heterodox economics tradition.

4. Heterodox economics as an alternative and antidote to economics imperialism

4.1. Varieties of heterodox economics

Economics, as we have seen above, is still very much dominated by the neoclassical paradigm. While changing its form and character since the 1970s, the economics discipline has remained marked by a commitment to a basic method and an approach to theorising that originate in neoclassical economics. We can stress in particular the continued focus on the individual and the persistent use of formal modelling in economics research. To do economics and to be an academic economist still requires adherence to certain standards of method and theory. Economics is still defined by its adoption of ideas of utility maximising behaviour and by its use of a formalistic and individualistic method. These features remain despite the continuing effort to extend the reach and influence of economics in the social sciences by dropping assumptions of perfect information and perfect rationality.

Yet, although on the very margins of economics discourse, there remain a number of different paradigms in economics that challenge and contradict mainstream economics, both new and old. These paradigms remain diverse and varied in size and scope. There are perspectives that offer support to the operation of markets, but in a way that differs from neoclassical economics. Austrian economics, for example, places stress upon the purposefulness and inventiveness of individual action and the dynamic nature of markets and market competition. Austrian economists, like Hayek, take issue with the static and formal nature of neoclassical economics and call for an economics that takes seriously issues of dynamics and change (Hagemann et al., 2010). Via the work of Hayek, Austrian economics had some impact on policy in the era of neo-liberalism; however, in terms of academic economics, their views on the purposeful nature of human action, the role of

fundamental uncertainty, and the dynamics of market competition have failed to find much interest and appreciation. Other perspectives, by contrast, are more critical of markets and often of capitalism. These perspectives range from 'old' institutional economics through to some variants of feminist economics to post-Keynesian economics and Marxian economics. They approach economic enquiry in different ways, but retain some common-ground in seeking to reshape and rebuild economics in a way that deals with the complexity of the economy as it interfaces with society and history.

We are interested here not so much with the details of individual heterodox approaches to economics – some of this detail is covered in work under Task 4 of WP2 – but with their contribution to integrating economics with the other social sciences. We focus on some general features of heterodox economics that invite the integration of the social sciences. This can be seen in the form of the theories endorsed by heterodox economics but also by the latter's broad policy and political perspective as well as by its general openness to the methods used in other social sciences. We will also show how heterodox economics can be an important supplement to say economic sociology where the latter is conceived in separation from economics imperialism and will locate potential areas for the mutual exchange of ideas across disciplinary boundaries which can be exploited for the purposes of developing and promoting an interdisciplinary research agenda.

4.2. Heterodox economics and interdisciplinary research

Below we focus on critical contributions from the political economy and heterodox economics tradition, leaving aside discussion of Austrian economics.¹⁴ Here we can consider some general aspects of heterodox economics or more broadly 'critical political economy' that as we shall see presently lend themselves to synthesis and integration across the social sciences.¹⁵

First, heterodox economics addresses the economy, not as an aggregation of utility maximising individuals, but instead as an inherently social and historical process. The conception of the economy involves consideration of specific social categories such as class and institutions and takes into account the role of history. The ideas of equilibrium and efficiency found in mainstream economics are replaced with a more general focus on the historical development and evolution of the economy in its relation to society. When the economy is studied, for example, it is recognised that it has certain specific features as it is organised under capitalism. This point is perhaps most clearly evident in Marxian economics where stress is placed on the forces and consequences of capital accumulation and on the existence and effects of capitalist exploitation (Fine and Saad-Filho, 2010); however, it is also reflected in institutional economics via the focus on the institutional setting of capitalism (Hodgson, 2004) and in post-Keynesian via the conception of a monetary production economy with the attendant analysis of the roles and functions of money and credit (Sawyer, 1989). Feminist economics adds to the consideration of the economy issues of gender, care, and the family, and indicates the importance of non-market activities for the functioning of the economic system (Peterson and Lewis, 1999). In the above ways, heterodox economics does not separate out the economy from society, only to bring the latter back in via consideration of market imperfections; instead, social structures and relations are recognised more or less from the outset and incorporated into the analysis of how the economy works. As such, direct connections are made with the concerns of other social sciences, though again not by token reference through the language and explanation of market imperfections, but by genuine engagement with the social in its interface with the economic.

Second, addressing more directly its analysis of the economy, heterodox economics brings into view the role and impact of politics, power, and conflict. Heterodox economics is more political economy than economics in this respect. There is a

stress, for example, on conflict between capital and labour over the distribution of income as well as over the generation of surpluses within production: for example, post-Keynesian perspectives deal with inflationary processes linked to distributional struggles over income and institutional economics and Marxian economics highlight conflicts within the workplace and their role in generating limits to firm and industrial profitability. Feminist economics brings into consideration issues of gender inequality and discrimination. The harmonious and efficient operation of markets presented in neoclassical economics is challenged by heterodox economists. Rather, attention is given to issues of power, inequality, and conflict.

Third, heterodox economics identifies and explains tendencies to instability and crisis. Here limits to economic development and growth are explained not as the product of market imperfections, but rather as systematic features and outcomes of the capitalist economy. Heterodox economists, of course, differ in their conception of instability and crisis. On the one hand, post-Keynesian economists put emphasis upon demand conditions within the economy and link crisis periods to contractions of aggregate demand. On the other hand, Marxian economists highlight systematic sources of capitalist crisis linked say to the tendency for the rate of profit to fall. Yet, while these differences remain important, there are also some areas of continuity in debate. This can be seen by the example of 'financialisation': a term and notion that derives from heterodox economics. The idea of financialisation is used in both post-Keynesian and Marxian economics to explain the changes in modern capitalism caused by the rise to dominance of finance, financial interests, and a finance culture (Stockhammer, 2004; Epstein, 2005; Fine, 2007; Hein, 2010). The application of this idea is quite broad but one application comes in the study of the limits to capitalist accumulation and development. The idea here is that through its analysis of the dysfunctional aspects of financialisation heterodox economics can offer help and insight to other social sciences that are interested in gaining a better grasp of the trajectory and crisis prone nature of modern capitalism.

Fourth, in the policy and political realm, heterodox economics seeks to challenge and transcend pro-market and neo-liberal policies. Policy and political agendas once more diverge between heterodox approaches in economics: whereas institutional and post-Keynesian perspectives take an essentially reformist position believing that capitalism can be saved from itself by suitable radical reforms, Marxian economics takes the position that capitalism must and will be transcended. The policy and political bent of heterodox economics, in general, complements and bolsters broader opposition to pro-market ideologies and approaches outside of economics.

Fifth, at the level of method, heterodox economics is open to different methodological perspectives, eschewing and resisting an exclusive reliance on econometric and mathematical modelling. There is also engagement with the broader debates in social theory regarding structure and action, and indeed several authors have located the dividing line between heterodoxy and mainstream economics in terms of the degree to which social structures are admitted into the underlying social ontology (Davis, 2004, Lawson, 2003). Heterodox approaches in economics tend to advocate mixed methods, combining quantitative and qualitative aspects of economics and non-economics disciplines, sometimes drawing upon realist arguments – to be found across the social sciences – in order to achieve this (Downward, 2003; Lawson, 2009; Davis, 2008; Fine and Milonakis, 2009). In these ways, such approaches link with research agendas and debates that are common to other social sciences.

The encouragement of a dialogue between heterodox economics and other social sciences, in short, appears to offer infinitely more than the takeover of the other social sciences by an imperialistic mainstream economics. By its nature and scope, heterodox economics is more suited to other disciplines and subjects and is better situated to pursue interdisciplinary research. Heterodox economics, while revived if

temporarily in the recent financial crisis, has struggled to reproduce itself in the shadow of mainstream economics; however, the possibility is for it to develop and potentially thrive via constructive engagement with other social sciences where its contribution is likely to be more appreciated and valued (see below).

4.3. Challenges and opportunities for interdisciplinary research

The project of economics imperialism, as we have seen above, has been and will continue to bring a mixed response from other social scientists (see Fine and Milonakis, 2009, p.151). Those willing to accept an individualistic method, and to endorse the theorisation of social and economic structures as the product of market imperfections, will no doubt embrace it. But many others are likely to reject it. Of these, the ones interested in the role of the economic and economics may be drawn via a critical engagement with economics imperialism to engage with alternative perspectives from within heterodox economics. The task then is for heterodox economists to promote their ideas and theories to other social scientists. This can come in the form of contesting economics imperialism but can also come in the development and promotion of interdisciplinary research agendas that entail theorising the economy as part of the wider social system.

There are, though, challenges to promoting interdisciplinary research in the ways suggested above. First, there is the challenge that heterodox economics faces within economics; as argued above, heterodox economics has historically faced problems of reproduction and has survived only on the fringes of economics. The revival and promotion of heterodox economics therefore faces some internal barriers, and while its future may lay in debate with other social sciences, heterodox economics is still in need of reproduction and development. Second, there is the legacy of the fragmentation of the human and social sciences with economics separated from sociology, history, and politics. Teaching and research within the human and social

sciences, for example, remains compartmentalised to a high degree. The strength of disciplines and the acceptance of their own particular domains of enquiry prevent the movement to a more unified social science. Third, there are intellectual and personal allegiances to particular disciplines and subjects. These create some risks for researchers (not least in terms of career) of transgressing disciplinary boundaries. With the existence of professional societies along with established research networks and journals, there are tendencies for disciplinary boundaries to become less porous and more ossified. Fourth, the danger is that disciplinary knowledge may be compromised or lost in the move to integrate disciplines and subjects. The pursuit of interdisciplinary research would obviously be less desirable if it came at the expense of the depth of analysis of specific phenomenon.

Set against these challenges there are a number of opportunities. First, there is the fact that the social sciences are themselves opening up to different perspectives and the dividing line between disciplines is becoming somewhat more blurred. Again this blurring in disciplinary boundaries has been affected by the process of economics imperialism; however, at the same time, it also creates opportunities for alternative perspectives that draw on and develop aspects of heterodox economics. Where sociologists, human geographers, and political scientists are now examining the economy, heterodox economists have the opportunity to engage them in constructive debate both about the limitations of economics imperialism and the merits of a broader and more encompassing approach to the study of modern capitalism. In particular, such debate could be conducted around discussion of the concept of financialisation and its application to capitalism in its current crisis phase. Second, there is specific interest in economics in other social sciences due in part to the perceived malevolent influence of economics not just on the nature and direction of neo-liberal policy and ideology but also on the creation of the world as we know it today (Mackenzie, et al., 2007). Here again heterodox economists have the opportunity to enter into a fruitful dialogue with other social scientists about ways to

build a different and better economics that coheres with rather than preys upon the other social sciences.

4.4. Summary

Heterodox economics, in its critical and radical forms, has the potential to reach out to other social sciences in ways that are not possible with the project of economics imperialism. Indeed, it can aid other social sciences in deflecting and contesting economics imperialism and more constructively can help to craft a different foundation for interdisciplinary research. As we have seen above, heterodox economics has much to offer other social sciences, not least in terms of the theorisation of the place of the economy in wider society, but also in respect of its openness to different methods and support for a critical research and policy agenda. While there are challenges to interdisciplinary research even with a revived heterodox economics, there are also several opportunities, and the argument advanced here is that these opportunities ought to be actively realised via a renewed dialogue between heterodox economics and other social sciences.

5. The view from outside economics: bringing discussion of the economic and economics into social research

5.1. A new economic sociology

In tandem with the process of economics imperialism, as already mentioned above, there has emerged in other social sciences a growing interest in both the economic and economics. This interest is significant not just in its own terms but also in respect of it creating space for new kinds of interdisciplinary research that potentially or actually include an input from heterodox economics. On the one hand, other social scientists have been drawn to the economic as a reaction to and against

economics imperialism. Perspectives from within the 'new economic sociology', for example, have looked to expose and remedy weaknesses in the 'new institutional economics' (Granovetter and Swedberg, 1992). On the other hand, other social sciences have taken a greater interest in the study of the nature and trajectory of modern capitalism. With the questioning of post-modernism in some quarters and the rise in interest in 'globalisation' and now 'financialisation', other social sciences have moved to develop their own explanations of economic phenomena.

Economic sociology has been revived in the years since the mid-1980s. Previously, as we saw above, there was a clear dividing line between economics and sociology. Sociologists rarely strayed onto the territory of economics. Although for some early authors such as Weber and Schumpeter there was a place and need for a 'social economics' that integrated sociology with economics, economic sociology only really gained prominence and impetus in the 1980s (Fine and Milonakis, 2009, p.87). The new economic sociology that has emerged in subsequent years has taken economics to task both for its theory and its imperialism. First, economics is criticised for its failure to properly account for the role and influence of sociological factors: to truly understand how the economy works, it is argued, requires an in-depth analysis of social relations and social structures. Second, economics is seen to be wrong in its insistence that it can be broadened to understand the non-economic realm by the dropping of a few of its assumptions. The idea put forward by the new institutional economics that institutions can be explained as the efficient solution to informational and agency problems is denied on the basis that institutions can only be adequately understood by a thorough going sociological analysis.

Key contributions have been made by Granovetter (1985). In an influential piece, he showed how the economy is embedded in society, rather than separate from it. The notion of embeddedness is used by Granovetter to explain the importance of social relations and social networks in the economy. Others contributors have followed the

lead of Granovetter and offered sociologically informed explanations of economic phenomena (see Smelser and Swedberg, 2005). These contributions in general have adopted methods and concepts that are alien to economics imperialism. They have retained affinities with mainstream sociological research and to this extent have remained detached from mainstream economics debates which have continued more or less regardless of the new economic sociology.

Other sociologists have considered the role of economics as a direct shaper of reality (MacKenzie, et al, 2007). In the 'performativity' literature, economic theory is said to have transformed financial markets via its promulgation of ideas of market efficiency and risk-less trading. The adoption and spread of complex financial instruments including derivatives is seen to have been directly aided by economics. The role of economics has been to create a reality that fits with its underlying ideas and theories. Reality may not start out like economics says it is; however, via acceptance of its theories and models, reality is transformed to fit it. This idea of economics as performative is often deployed as part of a broader critique of economics. In effect, economics is viewed as a malign influence on behaviour and practice in the real world. Just as economics has created a reality of complex financial markets so it has sowed the seeds of financial market instability that has ultimately proved impossible to contain. The implosion of finance in recent years has revealed starkly the dangers of economics as a lens through which to comprehend the functioning of finance and the economy more generally.

There are also perspectives in the area of work research that offer analysis of economic relations, structures, and tendencies. The labour process debate, for instance, has contained perspectives that have sought to relate changes in the workplace to broader changes in the economy: sociological debates on work in this case are given an economic basis and content. Thompson (2003; 2011) has recently called for a revived political economy approach to address the changes in work and work relations due to the now finance-dominated capitalism (see also, Spencer,

2011). His contribution signals a more specific concern to bring into sociological research consideration of the processes of financialisation within modern capitalism. Work undertaken by the Centre for Research on Socio-Cultural Change at the University of Manchester on which Thompson draws has offered a relatively nuanced account of the nature, causes, and consequences of financialisation and has added to the richness of the economic sociology field in general (see especially Froud et al. 2006).

In short, the revival of economic sociology has offered a rival to economics imperialism and also a potential and actual complement to heterodox economics. Yet, there is no prospect of economics imperialism being displaced by the new economic sociology (Fine and Milonakis, 2009, p.92). This is because economics is committed to and confident in its own method and techniques. While economics has become more outward looking, as we have seen above, it has not acquired any desire to accept the methods and concepts of sociology. Instead, economics has looked upon sociology as another target for colonisation. The critical contribution of Granovetter on social embeddedness, for example, has not been fully integrated into the economic analysis of institutions: indeed, like other criticisms made by heterodox economists, it has been effectively side-lined (Fine and Milonakis, 2009, p.119). The wider point here is that the new economic sociology has a potentially limited range of influence for its principal audience is other sociologists. Nonetheless, there is scope for a productive dialogue between economic sociology and heterodox economics, a point discussed further below.

5.2. Re-crafting economics as a social science: the case for political economy

The growing interest in the economic and economics in other social sciences provides a potentially golden opportunity for heterodox economics to renew itself. Heterodox economics does not just share with other human and social sciences

interest in a non-reductionist and holistic method but also provides a relatively developed understanding of the capitalist economy that can add to and extend approaches in economic sociology and other fields. We can think in particular of the contribution that heterodox economics could make in dealing with the bigger questions of capitalist development and crisis. For example, in the study of financial markets and their role in creating the conditions for crisis, heterodox economists could bring their expertise to bear on debates in other human and social sciences where there is interest in such matters.

The paradox is that while heterodox economics remains on the margins of economics debates it has great potential and capacity to influence debates outside of economics. Its contact with other human and social sciences has the potential to increase as economics imperialism is questioned and contested by other social scientists. But, as remarked above, there are difficulties in the translation of ideas across disciplinary boundaries. There are also disciplinary allegiances to contend with and overcome. Heterodox economists for their part need to reach out to other social scientists in new ways. At the same time, other social scientists need to be receptive to their ideas; there needs to be greater recognition that there are alternative viewpoints and perspectives in economics and that economics imperialism is not the only thing that economics has to offer.

The argument here is that the forging of closer ties between economics and other human and social sciences is best realised by the revival of 'political economy' (see Fine and Milonakis, 2009). Before neoclassical economics, (classical) political economy provided a home for interdisciplinary research in the social sciences. With the rise of neoclassical economics and the modern turn to economics imperialism, political economy has been squeezed out. Indeed, as further evidence of the process of economics imperialism, political economy has been re-appropriated as a part of mainstream economics. But, with the inevitable challenge to economics imperialism

and the development and proliferation of perspectives such as the new economic sociology, space has begun to open up for a renewal and revival of political economy.

A political economy capable of joining together the social sciences would seek to do several different things. First, it would stress with perspectives in economic sociology the social embedded nature of the economy. Second, it would add to this an understanding of the dynamics and tendencies of the capitalist economy. Here again we can think of heterodox economics as supplementing and augmenting more sociological accounts of the economy. Third, there would be an effort to explicate the relations of conflict and power that characterise economic and social structures, thereby rejecting 'efficiency' explanations of those structures. Fourth, there would be an attempt to show how the capitalist economy has evolved and changed over time: in this context, there would be recognition of how finance has developed at the expense of manufacture in several developed capitalist economies and of the wider implications of this shift for economic and social life. Fifth, it would be important that the economy be recognised as prone to volatility and instability: in consideration of this point there would an indication of the causes of crisis and uneven development under capitalism, especially that stemming from finance. Sixth, there would be a search for alternatives to the status quo: for example, when considering how to change the financial system, the accent would be on making finance work to meet the needs of society and economy not the other way around. Seventh, there would be recognition that qualitative and conceptual aspects of research are of equal importance to the quantitative aspects, leading to support for mixed method approaches to the study of the capitalist economy. Eighth, while respecting the individual expertise of researchers, the aim would be to fuse social and economic research in a more direct way. A more inclusive political economy ultimately would eschew the separation of disciplines and instead work towards the reunification of the social sciences.

5.3. Summary

Presently, economics faces challengers from within sociology that attempt to contest its own status as a purveyor of meaningful ideas and policies. Yet, despite this challenge, economics looks set to continue much as it is. At least there is no prospect of economics allowing itself to be colonised by sociology. As we have seen above, the reverse is likely to occur: that is, sociology and other social sciences are liable to be colonised by economics. But the space opening up in and around economics over the consideration of the economic and of economics can be seen to present opportunities for new forms of interdisciplinary research that challenge and go beyond perspectives linked to the project of economics imperialism. These opportunities are best realised, it has been argued, by the revival of political economy where the latter constitutes a new alliance between heterodox economics and other social sciences. A revived political economy, in particular, can be seen as well-placed to develop a deep and insightful understanding of the nature, trajectory, and limitations of contemporary capitalism in its present finance dominated epoch.

6. Conclusion

The question of how to integrate economics with other human and social sciences elicits different responses depending on one's viewpoint. Those who see neoclassical economics as essentially sound in its basic method and techniques, on the one hand, argue for its wider application to social phenomena via the dropping of some of its core assumptions notably those of perfect information and perfect rationality. This viewpoint is reflected in the project of economics imperialism that has gained currency in recent years. This project has entailed a one-sided integration of economics with other social sciences: in effect, economics has looked upon the other social sciences as targets for colonisation. Those who are critical of neoclassical economics for its outdated method and flawed techniques, on the other

hand, suggest that economics can integrate itself with the other social sciences only under the auspices of heterodox economics. These writers tend to be more open than their orthodox counterparts to the ideas and methods of other social sciences. They also remain more committed than proponents of orthodoxy to the building of an economics that incorporates rather than leaves out the realities of the world even where these realities are difficult or impossible to reconcile within the confines of a formal model or econometric equation.

It can be observed that in spite of its efforts to expand its reach much economics research still employs a very narrow method and set of techniques. Its commitment to an individualistic method and its application of utility and production functions remain despite the attempt to explore unconventional ideas such as imperfect information and bounded rationality: mainstream economics journals, for example, continue to be dominated by abstract models based on utility and production functions. Economics has extended its reach seemingly without regard for the traditions of other disciplines or for the contribution of heterodox economics. Yet, as we have seen above, this very fact presents difficulties in terms of the project of economics imperialism making an impact outside of economics. The relative insularity of mainstream economics means that its theories will continue to be resisted by other social sciences even where they appear to share some common areas of interest.

The above suggests that there are potential opportunities for heterodox economics to make ground. Heterodox economics is more amenable to other human and social sciences due to its relative openness to different methods and perspectives and can appeal to them as an alternative to economics imperialism. Here by way of contrast it can be noted that the prospects for heterodoxy within economics look bleak. The mainstream in economics remains essentially intolerant of heterodox approaches. But there is space for heterodox economics to meet the growing demands of other

human and social sciences for an understanding of the capitalist economy. In particular, heterodox economics could help to address growing concerns with the processes of financialisation, providing a bridge between economic and social as well as cultural analysis of its nature, evolution, and effects.

There are obvious barriers, methodological and conceptual as well as terminological and ideological, to the building of a more integrated social science. However, these barriers are by no means insurmountable. Indeed the argument of this paper is that they can be surmounted by a renewed and revived political economy that draws on both heterodox economics and other social sciences. The renewal of a political economy approach is particularly germane at the present time given the heightened concern within other social sciences in economic and economics related matters. The challenge for political economy is to meet this demand drawing on expertise that still exists in heterodox economics and renewing critical resources within other human and social sciences. A renewed political economy remains essential if we are to understand better the functioning, development, and crisis prone nature of modern capitalism.

Endnotes

1. In the 1970s, the emergence of stagflation brought about a loss of confidence in the prevailing 'neoclassical synthesis' and led to a rise in support for monetarism and New Classical Economics. Although the 1970s also saw an increased interest in radical and post-Keynesian economics, the latter were ultimately overshadowed by the monetarist and New Classical schools in economics.

2. Whether or not economics has been 'captured by' finance and financial interests is an issue for debate and cannot be directly addressed within the confines of this paper. Research in sociology suggests that economics has shaped reality directly and has helped to create an environment that is favourable to the promotion of finance and financial interests: this view is supported by MacKenzie (2006) and forms part of the 'economics as performative' thesis that is a key part of modern economic sociology (see below). For a different view that suggests that economics has been subverted by finance and financial interests in a direct way, see Ferguson (2010). Ferguson's acclaimed film, *Inside Job*, argues persuasively that rather than create reality in some autonomous way academic economics has become a hired prize fighter for Wall Street. Ferguson (2010) writes emotively that: 'Over the past 30 years, the economics profession—in economics departments, and in business, public policy, and law schools—has become so compromised by conflicts of interest that it now functions almost as a support group for financial services and other industries whose profits depend heavily on government policy. The route to the 2008 financial crisis, and the economic problems that still plague us, runs straight through the economics discipline. And it's due not just to ideology; it's also about straightforward, old-fashioned money'.

3. Nobel Laureate, Robert Solow (2010, p.1), hardly a maverick figure in the economics profession, has commented on the failings of modern mainstream macroeconomics: 'Here we are, still near the bottom of a deep and prolonged recession, with the immediate future uncertain, desperately short of jobs, and the approach to macroeconomics that dominates serious thinking, certainly in our elite universities and in many central banks and other influential policy circles, seems to have absolutely nothing to say about the problem. Not only does it offer no guidance or insight, it really seems to have nothing useful to say'. See also Kirman (2012).

4. Hayek was also revived, though in his case partly as a critical response to the modern revival of Keynes and Marx.

5. It can be argued that the two approaches highlighted here do not exhaust the available options for making economics interdisciplinary. Think, for example, of agent-based modelling (see Doyne Farmer and Foley, 2009). The latter has recently emerged in economics. On the one hand, it rejects the doctrine of methodological individualism and accommodates heterodox ideas around the importance of social relations and groups. Yet, on the other hand, it retains aspects of the method and approach of neoclassical economics: for example, it employs an axiomatic and formalistic method. While not doubting that there are some grey areas and also retaining an open mind regarding the potential of approaches like agent-based modelling to transform economics, the dichotomy between an expanded and imperialistic neoclassical economics and a renewed heterodox economics is seen here as a meaningful one in terms of categorising currently available ways to push economics in an interdisciplinary direction.

6. The triumph of neoclassical economics was not immediate and in its initial stages of development it faced severe critics and opponents from within other schools of thought. See Yonay (1997) for a study of how neoclassical economics vied with institutional economics in the US during the early decades of the twentieth century. See also Milonakis and Fine (2009).

7. In terms of value theory, neoclassical economics replaced a cost of production theory with a subjective theory based on the concept of marginal utility. This radical change led to a privileging of exchange over production. It also culminated in a focus on individual acts of consumption and took attention away from the nature and role of social groups and classes.

8. Ricardo, to be sure, adopted a formal and logical approach to theory development and to this extent there are links between his method and the method adopted by later neoclassical economists. Ricardo's economics, however, can be seen to contain several distinct elements, from the use of a labour theory of value to the consideration of social classes, which differentiate his approach from that of neoclassical economists.

9. It can be noted here that neoclassical economics has tended to embrace a very narrow definition of rationality in terms of utility maximisation that others (including many heterodox economists) would see as overly restrictive if not wholly unrealistic.

10. The Americanisation of economics can be seen in the influence of particular North American universities on the nature and scope of economics in the post-war period: as one telling example, consider how the Nobel Prize in economics has been

awarded mainly to US born or resident economists and more narrowly still to economists based at a few elite universities such as the University of Chicago (see Fine, 2012).

11. The discussion in this section draws upon arguments set out by Fine and Milonakis (2009).

12. The notion of economics as an imperialistic discipline can be seen as controversial in part because it implies that economics is seeking to takeover other disciplines rather than engaging them in a genuine two-way debate. Notwithstanding this, as suggested below, the 'imperialism' epithet is used by economists like Lazear (2000) as a signal of the strength of economics and is applied in a non-controversial and indeed positive way. For the present paper, 'economics imperialism' describes the process whereby economics is expanding its boundaries by the wider application of a particular set of techniques and method that derive from neoclassical economics (see Fine and Milnoakis, 2009).

13. Other perspectives that incorporate the assumption of bounded rationality include evolutionary game theory; for a critical review of the latter, see Hargreaves-Heap and Varoufakis (2004).

14. Austrian economics is left out in part because of its acceptance and promotion of a free-market ideology. In this respect, it is less critical than the other heterodox perspectives reviewed in this section. The omission of Austrian economics does not imply that it is lacking in insight; indeed, it offers some relevant insights on such issues as the competitive process. However, it is so different from the other heterodox perspectives considered that the decision has been taken to it omit.

15. Another candidate for consideration under the heading of critical political economy would be ecological economics; however, due to space limitations, this perspective will not be considered below.

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This project is funded by the European Union under the 7th Research Framework programme (theme SSH) Grant Agreement nr 266800



Financialisation, Economy, Society and Sustainable Development (FESSUD) is a 10 million euro project largely funded by a near 8 million euro grant from the European Commission under Framework Programme 7 (contract number : 266800). The University of Leeds is the lead co-ordinator for the research project with a budget of over 2 million euros.

THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialisation; how has financialisation impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialisation and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialisation? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?'

THE PARTNERS IN THE CONSORTIUM ARE:

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1 (Coordinator)	University of Leeds	UK
2	University of Siena	Italy
3	School of Oriental and African Studies	UK
4	Fondation Nationale des Sciences Politiques	France
5	Pour la Solidarite, Brussels	Belgium
6	Poznan University of Economics	Poland
7	Tallin University of Technology	Estonia
8	Berlin School of Economics and Law	Germany
9	Centre for Social Studies, University of Coimbra	Portugal
10	University of Pannonia, Veszprem	Hungary
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This project is funded by the European Union under
the 7th Research Framework programme (theme SSH)
Grant Agreement nr 266800



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