METHODOLOGICAL PLURALISM IN THE ANALYSIS OF COMPLEX FINANCIAL MARKETS

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Abstract

The financial crisis makes a good case study for an argument of pluralism, particularly in the analysis of complex financial markets. This paper contributes to the discussion on methodological pluralism in economics and finance by separating between different degrees of pluralism: an argument is made in support of a 'soft pluralism' in the analysis of financial innovation and financial policy-making. Such a framework is a viable strategy to complement the 'lessons to learn' approach centred on the past crises. Specifically, softer alternatives of pluralist methodologies would enable financial analysts and professional practitioners in Central Banks to improve the regulation of financial markets. Soft methodological pluralism recognises the importance of including younger economists and scholars into economic debates.

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Key words: financial analysis; pluralism in financial economics; degrees of pluralism.

Developments and innovations in financial markets

Contemporary financial markets are defined as competitive markets in financial instruments. These markets are based on sophisticated techniques, complex instruments and products that are difficult to appraise. They include a number of instruments such as loans, stocks, bonds, derivatives, and a wide range of financial services to households on the one hand, and public and private firms on the other hand. As noted by Mishkin, it is often argued that creative and innovative thinking on the part of financial institutions can lead directly to higher profits. For instance, several changes in demand conditions, especially the rise in interest-rate risk, have stimulated a search for profits that has resulted in financial innovations such as adjustable-rate mortgages, while changes in supply conditions as a result of advances in computer technology have led to financial innovations such as credit cards and electronic banking facilities (Mishkin, 2002, Ch. 9).

If new instruments in financial markets are left unregulated, they can result in speculation and misallocation of funds and investments; a failure in the regulation of financial innovation can have severe repercussions on the real economy. Even though evidence suggests that these markets are quite heavily regulated, the collapse of the US subprime mortgage markets and the subsequent 2007-2008 financial crisis shows that complex financial systems require a sound regulatory framework in order to function well. The crisis can be viewed as the latest phase of the evolution of financial markets under a significant financial deregulation process that began in the late 1970s. New policies are expected to replace the era of financial liberalisation and new thinking in finance is advocated to bring improvements both in research and in policy-making (Crotty, 2009; Morgan, 2009; De Larosière, 2010). The financial crisis makes a good case study for an argument of pluralism in financial analysis.

A focus on recent developments in finance and the banking sector, helps to take financial innovation resulting from technological progress and increased internationalisation of financial flows, into account. A number of policy-makers attempted to provide a definition of financial innovation by stressing the differences in the outcomes from such a process: 'the growth in international financial markets and a greater diversity of financial instruments have provided banks with wider access to funds. At the same time, markets have expanded and opportunities to design new products and provide new services have arisen. While the pace of these changes appears to be quicker in some countries than others, banks everywhere are generally becoming more involved in developing new instruments, products and services, and techniques' (Van Greuning and Brajovic-Bratanovic, 2000, p. 2).

Only during the appearance of the financial crisis, scholars started an enquiry on whether a better use of economic theories and a variety of methodologies could have helped to predict the crisis. There exists a vast literature on the financial instability and business cycles. Insights from such a literature could have been employed to assess the potential sideffects and the drawbacks resulting from the so-called 'creative finance'. For example, writings from scholars such as Minsky (2008) help to assess the financial developments that occurred in recent decades from a different perspective, and account for the fact that advanced economies are exposed to severe fluctuations and financial instability. In fact, as the 'normal' functioning of developed economies often leads to financial crises, inflation, currency depreciations, unemployment and poverty, a financially complex capitalism appears to be 'inherently flawed' (Minsky, 2008, p. 320).

Theory on its own does not suffice to develop a sound analysis of the financial crisis and assess its impact on the real economy. To provide an exhaustive outline of its causes and to suggest viable improvements in regulation and financial risk management, it is essential to address the problem from a methodological standpoint. What is the best methodology for such an analysis? Perhaps the question should be reframed: it is a *plurality of methods* and research techniques that currently provides the best strategy to address the complexity of contemporary financial markets. However, when talking about pluralism in economics, one needs to recognise that there can be potentially different degrees of pluralism.

This paper aims to provide an argument for separating between different degrees of pluralism; *second*, it aims to discuss the possibility to apply 'softer' degrees or alternatives of a pluralist methodology. Such a framework needs to be organised according to a set of guidelines in order to prevent theoretical fragmentation and methodological relativism, which may lead to poor results. Indeed, the financial crisis calls for the adoption of a wider range of financial policies: a soft pluralist methodology is perhaps the best strategy to improve financial research and complement the 'lessons to learn' approach centred on crises from the past (indeed, from a methodological point of view the future cannot be reliably predicted neither by past market data nor by an account of the crises from the past – however exhaustive such an account may result at first).

Degrees of pluralism in the study of financial markets

This chapter contributes to a tentative separation in terms of the degrees of methodological pluralism, and suggests that, preferably, a 'softer' version of methodological pluralism is to be effectively applied in economics and finance. Central to methodological pluralism in economics is the idea that alternative approaches are particularly valuable since they are useful for improving the quality of research and help one to obtain new insights on economic and social problems that occur over time. Despite being initially attractive, such ideas are often vaguely defined by its main advocates, and are not properly contextualized.

Almost 30 years ago, Bruce Caldwell – a leading advocate of methodological pluralism in economics – provided a strong argument for the replacement of positive economics with methodological pluralism. The primacy of the latter is given by its ability to recognise that initial conditions in any test situation are numerous and sometimes un-checkable. Under such a framework, one of the primary goals shared by scholars and researchers is to promote an environment in which both novelty and criticism can operate freely (Caldwell, 1994, p. 254). Such an argument presumes that there is no single, infallible method in economic research of any kind.

On the other hand, Dow (2008) managed to develop the argument further by suggesting that pluralism in economics can be defined as an argument for plurality. As such, it can be described from different perspectives; for instance, at the level of knowledge, theory, methodology, reality and application. In order to asses the benefits resulting from such a methodological framework, one needs to question whether it is viable from a practical point of view in the first instance.

How does such a programme translate into analysis? How does it relate to theory? Specifically, does a pluralist methodology provide new insights on the analysis of complex financial markets? What are the implications of such an argument for the design of an effective financial regulation? These are open questions that need to be properly addressed if methodological pluralism is to gain popularity among economists and scholars in the social sciences. Unfortunately, existing accounts on methodological pluralism do not provide a clear distinction between different *degrees* of pluralism, thereby limiting its attractiveness. To solve such a shortcoming, I suggest that an account of the degrees that exist within a pluralist framework is the minimum requirement to establish a lasting research program based on methodological pluralism.

Methodological pluralism is a concept that needs to be defined unambiguously and clearly. The current literature only distinguishes between ‘pure’ and ‘structured’ pluralism, a distinction due to Sheila C. Dow (see for instance: Dow 2004). There can be a number of more or less pronounced alternatives to pluralism, not all of them are equally applicable at the level of reality. Within a ‘*pronounced framework*’ for methodological pluralism, economic and social problems can be addressed only from a plurality of theoretical and methodological angles; any research is flawed unless such a plurality is *a priori* granted. As a result, the distinction between different approaches and schools of thought becomes increasingly blurred since a plurality of views prevails over individual methodologies and theoretical perspectives: ultimately, one is no longer able to separate between mainstream and non-mainstream views nor between ‘best’ and ‘worse’ accounts of the social reality. In the end, such a relativism leads to very poor results in the analysis and theory application.

Conversely, a less pronounced account of methodological pluralism aims primarily at stimulating positive debates between different schools of thought and compare or contrast a number of methodologies. Such an alternative of methodological pluralism can be defined as a *'soft' methodological pluralism* in economics and financial analysis. As such, it does not presume pretentious – even abstract – methodological goals but, instead, aims at offering concrete solutions to practical economic problems. Such a framework can be applied to research in a much more fruitful way than more pronounced pluralist alternatives since it enables to save time and requires less funding than more pronounced alternatives. At the same time, it promotes the recognition of alternative theories and methodologies to mainstream ones – something that (as discussed earlier) was recently missing in the evaluation of the risks that lead to the financial crisis.

Softer alternatives of methodological pluralism may be effectively included in the analysis frameworks as well as established policy-making processes by a variety of institutions such as Central Banks, Statistical Offices, and private research enterprises. One should note that such a proposal is currently at an initial stage: it needs to be developed further in order to become applicable both at a research level and in policy-making. Why is it potentially beneficial? At a research level, a soft methodological pluralism tends to encourage any original contributions from younger scholars thus enabling them to improve existing research rather than developing research by simply replicating established methodologies and theoretical frameworks.

What skills should scholars and analysts develop in order to be able to work within the framework advocated above? An example from the domain of financial intermediation is particularly relevant to answer such a question and helps to clarify my argument. The assessment of banks and other financial intermediaries normally centres on their management and control, risk profile, portfolio quality and asset structure, financial statements, compliance, information capacity and quality of communication, and finally human resource management. To claim for robustness, accuracy and full reliability, analysis should take complementary aspects such as the existing regulatory framework and the economic environment in which banks compete, into account.

To properly carry out her or his task, a professional analyst must be able to apply 'a holistic view of the financial system'. Such a view presumes a variety of skills and capabilities: as suggested by Van Greuning and Brajovic-Bratanovic, 'before appraising a bank, an analyst should understand the philosophical basis for pertinent laws and regulators ascertain if the legal and regulatory framework is complete and consistent. The analyst should be thoroughly familiar with the framework not only because bank operations must comply with it, but also because it provides a context for bank's business, including the objectives and scope for allowed activities' (Van Greuning and Brajovic-Bratanovic, 2000, pp. 21-22).

A soft pluralistic framework for the new financial regulation can provide several insights, particularly if young scholars are to be included in the debate. To quote from Morgan, 'one of the main outcomes of the current crisis is the acknowledgment by policy makers that new thinking is required, that regulation must change the nature of the finance system and its relation to the economy. Part of the problem, however, is that the people advising on this are drawn from the same pool that created the current problems' (Morgan, 2009, p. 606). Thus, it is important to encourage young scholars and prospective economists to bring their points of view and include their ideas in the current debate. A soft version of methodological pluralism may facilitate the accomplishment of the task with the promotion of novelty and positive criticism, and the inclusion of new ideas developed by the young economists and social scientists.

A soft methodological pluralism in financial regulation and policy

In contemporary finance, the complexity of mathematical models compares to that of physics (De Scheemaekere, 2009). Financial analysis and resulting policies are often developed with the use of such models. Nonetheless, a reliance on exclusively statistical or econometric models may produce flawed results (however objective and accurate such models may be). Therefore, it is sensible to argue that economists and scholars should try to apply different methodologies to their research, and try to establish which methodology is more applicable, more useful in providing better solutions to a give problem. Also, they should try to work on the same topic from different epistemological standpoints and methodological perspectives. A way to promote a 'soft' pluralism in economics is through a higher degree of interdisciplinary both in research and teaching (this argument would *per se* require an in-depth discussion).

If on the one hand the use of statistics and econometrics in economics needs to be reassessed at least to some extent, on the other hand the integration of financial economics and social theory provides a basis for valuable interdisciplinary research. There are several topics and arguments to be analysed more in detail if one is to obtain a full account of the complexity of contemporary financial markets. For instance: the social efficiency of financial markets; the structure and the organisation of such markets; the cognitive frames and behaviour of financial operators under uncertainty; the aggregate financial processes from a macro-perspective. Ideally, a pluralist approach would provide an open-system approach, allowing for inputs from other disciplines (Dow, 2008; Mutti, 2008). In addition, a better balance between financial, economic and social perspectives that relate to financial markets and complex financial systems is currently missing and needs to be discussed further.

Scholars such as Lavoie (1990) argue that in the past, pluralism played an important part in establishing a new agenda in economics, which involves philosophy and discourse analysis. Nonetheless, it currently remains somewhat excluded from practical applications and official policy-making. From time to time, pluralism has been promoted by financial regulators and authorities, namely by the FED, the Bank of England, the European Central Bank, and other institutions in order to address the complexity and the increasing interrelatedness of the economy (Mayer, 1999; Dow, 2006). I argue that such an application was – itself – an example of a soft version of pluralism. However, it was only applied in a limited number of occasions, and therefore its potential benefits have not been properly accounted for by the above-mentioned institutions. At an institutional level, analysis has been conducted primarily by the application of a limited number of theoretical models ultimately based on the idea that reality has a number of fundamentals that provide a rational basis and promote equilibrium in the long term.

Instead, the nature of the recent financial crisis has revealed the limits of the analytical models that determined central banks' perspectives and policy-making. In the last few decades, policy and analyses from central banks have been influenced by theoretical models such as the Taylor rule framework approach that is rooted in a Conventional Theoretical Macro Model. The Taylor rule centres on the manipulation of short-term interest rates to guarantee stable inflation and economic growth. To cite Morgan, 'the FED, Bank of England and, to a lesser degree, the ECB, have pursued a form of policy informed by a common brand of applied monetarism that emerged in the 1990s. Each sets a short term interest rate whose purpose is to feed through and influence short term market interest rates and, less directly, long term commercial rates. Each is mandated specifically to control inflation as part of its primary function' (Morgan, 2009, p. 583).

Such limits suggest that softer alternatives of pluralism could play a major role in the reassessment of economic and financial policies. As a response to the crisis, financial authorities, regulators and policy-makers should focus on the potential benefits that theoretical and methodological pluralism can bring to financial and banking regulation. An application of its softer alternatives could be particularly useful to prevent shortcomings and decrease the number of difficulties that regulators face in their forecasting of potential instabilities and assessment of crises. It could also shed some light on whether regulation needs to be re-designed from an international or a national perspective.

In conclusion, an application of 'soft' pluralism in financial analysis would definitely improve our understanding of financial innovation and provide a less ambiguous account of the developments in financial markets. If the present paper attracted the reader's attention to focus on the potential benefits from methodological pluralism in financial analysis – particularly its softer versions –, then the goal has been accomplished. By providing a focus on diverse aspects ranging from financial to welfare perspectives, from economic to sociological perspectives, a 'soft' methodological pluralism would contribute to increasing both the accuracy of methodologies and the predicting power of existing theories in financial economics. Translated into policy, this could lead to the prevention of speculative behaviour that still persists in some segments of the financial markets, and gradually to the establishment of a fair capitalism.

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