

REVIEW OF *BANKS AND FINANCE IN MODERN MACROECONOMICS*,
BY BRUNA INGRAO AND CLAUDIO SARDONI, EDWARD ELGAR, 2019

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INTRODUCTION

Born out of a cycle of seminars, the new book by Bruna Ingrao and Claudio Sardoni investigates the way in which modern macroeconomics has dealt with banks and financial markets and the role they play in the economy. This is an extremely interesting topic, which the authors address with great competence, adopting a history of economic ideas perspective.

In their opening remarks, Ingrao and Sardoni note that “for a large part of the 20th century, spanning from the late 1930s to the 1980s, mainstream macroeconomics put banks and the financial system to backstage, or even expelled them completely from its theoretical representations of the economy” (Ingrao and Sardoni 2019: 1). That this occurred while financial systems were expanding enormously, in terms of transactions, diversity of intermediaries, complexity and interrelation with the real economy, is a puzzle, which the authors find disturbing.

Finding an explanation to this puzzle has become particularly urgent in recent years, after the US sub-prime crisis plunged the world economy into a prolonged and deep recession, whose relationship with innovation in lending and interconnections between banks and financial markets failed to be understood at least initially (Tooze 2018). Ingrao and Sardoni take on this task, analyzing the way in which mainstream macroeconomics has become gradually blind to the role that banks and financial markets play in the economy as sources of change and instability. The gist of their argument is that this occurred as macroeconomists turned to highly aggregative general equilibrium models where money competes with other assets,

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banks are either absent or act as mere intermediaries between savers and investors, security markets are populated by rational agents, risk is quantifiable, and payment systems work smoothly.

Ingrao and Sardoni develop their arguments in the context of a rich reconstruction of the history of modern macroeconomic ideas, cognizant of the importance of economic history, changing economic policies and the sociology of research in academic communities. Their reconstruction concentrates on selected mainstream authors and their main works, with limited reference to non-mainstream contributions. Wicksell, Schumpeter, Fisher, Robertson, Keynes, Hicks, Patinkin, Friedman and Lucas attract most of the attention. Many other authors are discussed alongside these “giants” while contemporary contributions receive comparatively less attention.

This choice, which some may frown upon, is coherent with the point Ingrao and Sardoni wish to make, i.e. that the moment when mainstream macroeconomics starting pushing banks into the background coincides with the genesis of the *General Theory* and its reinterpretation by the Neo-classical Synthesis, old (IS-LM, AS-AD) and new (IS-AS-MP). As a part of this process, pre-Keynesian innovative ideas about the allocative function of banks and their potential as sources of instability in connection with financial markets were obscured, while attempts to reinstate some of those ideas in the main body of mainstream macroeconomics were either sidelined (Gurley and Shaw, Tobin), or ignored altogether (Minsky).

1. BANKS AND FINANCE IN THE ECONOMY: THE PUZZLING TRAJECTORY FROM CENTRE TO BACKSTAGE

During the 19th century, Ingrao and Sardoni note the presence of “a kind of schizophrenia” between price theory, giving pride of place to the notion of equilibrium, and monetary analysis, focusing on disequilibrium phenomena related to the functioning (and malfunctioning) of credit and financial markets. This schizophrenia underlies the gap between the neo-classical value theory, which deals with optimal choices based on relative prices taking place on competitive markets, and monetary theory, which deals with the price level, the business cycle and the influence of money and credit on both in the real world.

The first part of the book by Ingrao and Sardoni (from Chapter 2 to Chapter 6) deals with the early attempts to unify value theory and monetary theory (macroeconomics *ante litteram*) at a time which saw the emergence of modern commercial banking in the industrialized world (Grossman 2010) combined with the consolidation of organized global markets

for commodities and securities (Michie 2007). Part of the effort in this direction consisted in reformulating the quantity theory of money to include banks and bank deposits in its perimeter. This led to analyse the role played by banks and financial markets in the business cycle (Wicksell, Hayek), and to develop insights on speculation and the monetary origins of economic fluctuations, originally applied by Took, Mill, Lord Overstone among others.

In this context, the active role of banks in directing resource allocation through credit attracted considerable attention, in connection with the issues of innovation and endogenous cycles (Schumpeter, Robertson), deflation and instability (Fisher). Attempts to reconcile the quantity theory with the idea of endogenous money causing prices (and production) to fluctuate in response to deviations between investment and savings, mark the apex of pre-Keynesian efforts to place banks and financial markets at the centre of macroeconomic analysis.

From this point onwards, economic theory moves in a different direction, as the second part of the book documents (from Chapter 7 to Chapter 10). Ingrao and Sardoni identify this turning point, focusing on Keynes and the transition from the *Treatise on Money* to the *General Theory*. In their reconstruction, the *General Theory* marks the start of a process leading to the disappearance of banks if not of money and financial markets from mainstream macroeconomics. Keynes's analysis of liquidity preference as a choice between money and securities in a context characterized by radical uncertainty leaves little room for an active influence of banks on production and resource allocation. In this context, banks appear as conservative intermediaries acting on the basis of established conventions under the powerful influence of the central bank, a fact which made it possible to ignore them and their allocative role.

Soon after the appearance of the *General Theory*, as Ingrao and Sardoni reconstruct moving along a well-established path, the Neoclassical synthesis took a step further on the road that would lead banks and their links with financial markets away from mainstream macroeconomics. Both the IS-LM and the AS-AD model collapse the financial side of the economy into an equilibrium condition between money demand (liquidity preference) and money supply, with homogeneous securities as the sole alternative to money. Money supply is obtained as the product between base money, under the control of the central bank, and a more or less stable money multiplier. The role of banks as passive intermediaries between savers and investors is emphasized together with the irrelevance of corporate finance in determining a firm's value (Modigliani and Miller).

With time, Monetarism revived interest in the quantity theory of money and the causal relationship from money supply to nominal income,

which had also attracted the interest of pre-Keynesian macroeconomics. However, whereas many contributors to that literature had paid close attention to the influence of banks on allocative decisions, through their linkages with financial markets and in other ways, Friedman and monetarism took a different road, reinstating the idea of money as a veil. New Classical macroeconomics, with its emphasis on monetary shocks, imperfect information and equilibrium, excluding financial markets as a source of disturbances a priori, built on the same premises, paving the way to the Real Business Cycle where money vanishes altogether as a determinant of significant macroeconomic developments. This would change with the emergence of New Keynesian Economics and its attempt to bridge the gap between reality and macroeconomic modelling by combining imperfections (nominal and real rigidities, asymmetric information, coordination problems) with rational expectations and dynamic stochastic general equilibrium (DSGE) models.

Among the different strands that characterize New Keynesian Economics, the one that prevailed, in the form of IS-AS-MP model (Woodford 2009), focused on imperfect competition and sticky prices as the main cause of deviations of output from its Pareto-efficient optimal level, leaving no room for banks, their allocative function and their potential as causes of financial instability. As Trautwein (2019) reconstructs, this modelling framework met with criticism even before the global financial crisis proved its complete inadequacy to account for coordination failures, financial crises and their aftermath. In response to that criticism, DSGE modelling has evolved and is currently capable to embody commercial and shadow banks, different types of borrowers and financial frictions.

These models, while bringing some measure of realism to macroeconomics, do not solve the problem that Ingraio and Sardoni lament, i.e. that macroeconomic modelling based on general equilibrium is incapable of fully capturing the nature of banks and the contribution they give, directly and through their connections with financial markets, to production and resource allocation.

2. SOLVING THE PUZZLE

From Walras and Arrow-Debreu to AS-AD and DSGE representative agent models, general equilibrium has little if any role for money and none for banks and non-bank lending institutions unless ad-hoc assumptions and frictions are introduced. As Ingraio and Sardoni reconstruct, this is so for two reasons, which recent contributions to the DSGE literature only partially address.

The first reason has to do with what James Tobin labeled the “consolidation vice” (Tobin 1980). Consolidating the credits and debts of private economic agents and different assets into one security yielding a unique return, eliminates the heterogeneity, which is essential to understand the role that banks and financial markets play in a complex environment characterized by complex coordination between different categories of investors and savers, innovation, endogenous cycles and radical uncertainty.

Prior to the 1930, the view prevailed, which saw banks as strategic players vying for space in non-perfectly competitive markets, through product innovation, innovative approaches to risk management and oligopolistic strategies. In this context, banks, together with non-bank lending institutions and markets, are the “visible hands” – as Ingraio and Sardoni call them – that direct the production and allocation of resources via credit creation and financial innovation. Money supply becomes endogenous and not perfectly controllable by the central bank. The boundary between monetary and financial assets itself becomes blurred and different categories of financial intermediaries, issuing different types of securities, interact in the economy, bringing about fluctuations in economic activity.

Between the 1950s and the 1960, a line of research developed by Gurley and Shaw (1960) and Tobin among others explored these issues giving prominence to the macroeconomic role that banks, non-bank financial intermediaries and different types of financial assets play. Ingraio and Sardoni reconstruct this line of research, lamenting its fading out in favour of the “net-money doctrine”, which ignores inside money and finance and emphasizes the role of banks as passive intermediaries between savers and borrowers, multiplying bank reserves under the aegis of the central bank.

The second reason that explains the inadequacy of general equilibrium models based on rational expectations with respect to their ability to account for the allocative function of banks has to do with the notion of centralised trading and global stability of the optimal inter-temporal steady-state path which those models embed.

On the one hand, this way of understanding intertemporal allocation leaves no room for money as medium of exchange (all goods are equally liquid and all exchanges are multilateral), unit of account (any good can be numeraire) or store of value (no risk of default or disruption in the payment and credit systems). The absence of money, implies *a fortiori* the absence of banks, whose function is to create money (purchasing power) through finance and credit, supplying the economy with abstract purchasing power not constrained by initial endowments. Financial markets remain in the picture but their role as the arena where banks compete, through product and process innovation, disappears. On the other hand, as Goodhart and Tsmococs (2012) and Trautwein (2019) among others observe, rational ex-

pectation require transversality conditions, which rule out rational speculative bubbles, unsettled debts, defaults and leftovers of “useless capital”. This fact, in turn, prevents DSGE models from fully accounting for financial instability and crises and invites to look for alternative approaches.

3. THE WAY AHEAD

The Great Contraction has revealed that banks and financial markets far from being accessories are parts of the “real economy” and cannot be ignored by macroeconomic theory. The mainstream approach, embodied by DSGE models, is subject to deep rethinking as Brancaccio and Saraceno (2017) among others discuss, focusing on the exemplary case of the intellectual trajectory of Olivier Blanchard. General equilibrium, with its emphasis on money neutrality and spontaneous tendency towards “natural” employment, cannot provide a basis for understanding the macroeconomic phenomena that emerged during the 2007-2009 “Great Recession”. Different approaches are needed to do so, combining ideas drawn from the pre-DSGE economics with detailed knowledge of monetary and financial institutions and their evolution over time.

The approach endorsed by Ingraio and Sardoni in this regard focuses on heterogeneous agents, decentralized bilateral trades, asymmetric information, changing risk perception and possible disruption to the payment system as the key elements that justify the special role of money in comparison with other assets. In their vision, money is primarily unit of account and means of payment, an institution rather than one commodity among many others, which can be quantified and circulates at a certain velocity (Goodhart 1998).

In a monetary economy, characterized by decentralized markets and radical uncertainty, banks and non-bank financial intermediaries that operate on financial markets are the “visible hands” that create purchasing power and make innovations as they compete against each other in the provision of payment and financial services to their customers. In this context, far from being a veil, money is a social norm, “[an] instrument by which millions of transactions are expressed in a common language of value that permits mutual understanding” and the trading of contracts defining abstract flows of purchasing power. A social norm, which rests on systems of laws and shared conventions, which economists should be familiar with.

Managing the payment system “the accounting technology to support legal, bilateral transactions in a commonly accepted means of payment”, banks monitor the solvency of traders and preside over the smooth working of the economy and this function adds to their power and relevance in

the economy. By evaluating risks and credit worthiness “in market environments dominated by imperfect, asymmetric information and volatile asset prices”, banks operate at the junction between the real economy and the world of finance and markets, playing a determinant role in avoiding (and in some cases causing) coordination failures between the two sides of the economy and endogenous cyclical fluctuations.

The relation between this way of understanding the macroeconomic role of banks and financial markets and the evolution of the institutional context, especially in the UK and the USA, is evident. Ingrao and Sardonì hint at it in various parts of their book while giving precedence to an internal “narration on the evolution of core theories”. This is not inconsistent with appreciating the role that changing banking and financial regulation played in this regard, an issue which Ingrao and Sardonì may have wished to consider in more detail. Regulatory measures adopted in the wake of the Great Depression (Youssef 2017) and in subsequent decades contributed to the segmentation of financial systems, the separation of banks from financial markets and of commercial from investment banks, the limitation of competition in banking. As the power of banks and markets to innovate and disrupt economic activity was harnessed, it is not surprising that macroeconomic theory ignored both. Starting in the 1980s, however, deregulation restored that power and with it the need to revisit the changing role that banks and financial markets play in the economy in connection with regulatory cycles and financial crises (Dagher 2018).

Economic models alone, no matter how sophisticated, cannot hope to capture completely the function of banks and financial markets as the “visible hands” that influence production and resource allocation. As Ingrao and Sardonì put it

It is difficult to translate and embody historical change, the intricacies of human intelligent response and initiative, the formation of expectations in conditions of radical uncertainty, into analytical models. The ambition to capture these complexities into some simplified formal scaffolding would be a further, dangerous pretense of knowledge. This difficulty is not a minor one given the current state of affairs in macroeconomics, which essentially considers models as the only proper way to approach economic problems. It is a matter of convincing a significant part of the profession that a more satisfactory analysis of the dynamics of the economy cannot be looked for only through models, although they may be very sophisticated, but it requires a variety of intellectual tools [...] like analyses that take advantage of historical, social and political knowledge (Ingrao and Sardonì 2019: 249).

Adding heterogeneous agents, model uncertainty and cognitive imperfections to highly aggregative general equilibrium models, as current ver-

sions of DSGE modelling do, simply misses out on too many important aspects about the contribution banks and financial markets give to production and resource allocation and occasionally to financial instability. A new historical-analytical approach is called for, capable of studying the interrelations among the financial structure, capital asset prices, investment and profits in a capitalist economy, prone to fluctuations and instability. Ingrao and Sardoni are not blind to the difficulties that developing this new approach poses, but their new book is certainly a step in the right direction.

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