Chapter 1 : Endogenous Money: An Analytical Approach | Giuseppe Fontana - theinnatdunvilla.com

endogenous money In this section, I will focus on three aspects of endogenous money: the creditary approach, the state money approach, and the relation between sovereignty and policy.

Both approaches defend an endogenous money theory, but they discriminate between different analyses of the credit market and the reserve market. A more general model encompassing both approaches is presented here and some of its implications are discussed. As for its origin, money is a by-product of the normal working of the economic mechanism. Its supply arises as a result of the creation of new bank liabilities within the income generation process Moore, b. Since the process of creation of money lies within the economic system rather than in the independent discretionary action of the central bank, this view has been labelled endogenous money theory to distinguish it from the exogenous money theory of the monetarist school e. Cottrell, ; Laidler, , pp. While those propositions are widely accepted among Post Keynesian economists there is a long-standing debate between what have now come to be called the horizontalist approach and the structuralist approach to endogenous money, respectively Pollin, Arestis and Howells, ; Cottrell, ; Dalziel, , pp. The discussion has slowly shifted to a metatheoretical plane to which some commentators are disinclined to move e. Recently there have been attempts to amend the current state of affairs. Lavoie, and structuralists e. For instance, Lavoie has strongly defended the view that there is no real disagreement among endogenous money theorists: Unfortunately, despite all good intentions these recent contributions have not succeeded in providing a general framework, as opposed to partial analyses, in which the controversial arguments about endogenous money can be properly discussed and harmonised. This paper is an attempt in that direction. The novel idea is that there is a time framework that can make the horizontalist approach and the structuralist approach compatible. Using this time framework a general model of endogenous money is built, and similarities and differences between horizon- talists and structuralists are then explained in a rigorous and simple way. The paper is structured as follows. In Section II the main arguments of horizontalists and structuralists are discussed. Section III proposes a general credit model that encompasses most of the claims advanced by those scholars. Concluding remarks are provided in Section VII. II Horizontalists versus Structuralists The standard view in Post Keynesian economics is that money is the wheel of trade and growth in modern economies. But how money comes into being, and how different groups of agents enter into that process is controversial. In particular, there is a long-standing debate between horizon- talists and structuralists about the behaviour of the central bank in the monetary reserves market and banks in the credit market. How does a central bank keep the lending activity of banks in check? Does it accommodate any demand for reserves at the going short term interest rate? Similarly, do banks accommodate any demand for credit at the going interest rate? And, related to that, how should the supply curve of monetary reserves and the supply curve of credit be represented? Kaldor-Trevithick, ; Moore, a. The story is centred around the behavioural functions of entrepreneurs, banks and the central bank, and goes as follows. Entrepreneurs require credit for keeping the production process going or for setting up new processes. The price of credit, i. In fact once base rates are set, banks accommodate any demand from creditworthy entrepreneurs. The phenomenon of credit lines is often used to support this view. The other key player in the horizontalist approach are then banks. They can be thought of as any institution whose liabilities are generally accepted media of exchange. They offer loans to creditworthy customers at an interest rate that is determined as a mark-up over the short term interest rate set by the central bank. But, horizontalists argue, if banks are able to respond at this demand for credit, it is because the central bank always supplies the necessary level of monetary reserves that validate the new lending, though at a price of their own choosing. Thus, the central bank is the ultimate provider of liquidity to the system and the short term interest rate is the control instrument over the lending activity of banks. Putting all arguments together, horizontalists maintain that the central bank and commercial banks are price makers and quantity takers in the monetary reserves market and the credit market, respectively. In the last decade those propositions have come under the growing criticism of structuralists e. Dow, ; Howells, ; Palley, ; Wray, These endogenous money theorists accuse horizontalists of having ignored the effects on the money supply process of a generalized theory of liquidity preference. Structuralists argue that in modern monetary production economies entrepreneurs, banks and the central bank are usually constrained in their activities by the need of equilibrating over time their balance sheets Bibow, ; Dow and Dow, Liquidity preference as represented by the composition and the size of balance sheets is then used as a short-hand way for referring to the complex behavioural functions of agents Wray, For instance, entrepreneurs may be gloomy buoyant in their demand for loans; or be less more willing to substitute cash for capital goods in kind or short term assets for long term assets. Thus, whatever is the monetary stance of the central bank over the business cycle, banks change the mark-up over the short term interest rate in accordance with their degree of liquidity preference. For example in the case of economic downturn it is likely that banks would increasingly opt for the purchase of existing assets rather than accommodating the demand for credit of entrepreneurs. Finally, the notion of liquidity preference is also relevant for the central bank Dow and Rodriguez-Fuentes, ; Goodhart, , p. The central bank too takes policy decisions on the basis of its balance sheets. For instance, when the general level of price is high low the central bank is less more willing to accommodate an increase in the demand for reserves. It would rather choose to raise the short term interest rate in order to encourage banks to reduce their lending activity. In a nutshell the effects over the money supply process of the activities of entrepreneurs, banks and the central bank according to structuralists need to be understood in the light of their liquidity preference. For structuralists then the monetary reserves supply curve and the credit supply curve are best represented by upward sloping rather than horizontal lines. Insofar as horizontalists and structuralists argue over the best way to represent the availability of reserves and credit, the debate on endogenous money explicitly focuses on the private initiative of banks and the policy stance of the central bank. Thus, those topics are key analytic areas for any attempt to explain the current state of affairs in the endogenous money literature. The argument put forward here is that the main differences between horizontalists and structuralists rests on particular assumptions about the state of expectations of banks and the central bank. Both approaches to endogenous money reject the idea of modelling the money supply process by assuming away uncertainty and false expectations, thus creating a monetary theory of perfect information and certainty environment. However, they make different assumptions about the constancy of expectations and their effect on the creation of money. From this perspective both approaches are a legitimate development of the method and the methodology adopted by Keynes in the General Theory Brown-Collier and Bausor, ; Fontana, ; Gerrard, ; Kregel, Horizontalists rely for their analysis upon a single period framework while structuralists use a continuation framework Fontana, a; Hicks, , p. Unfortunately a likely effect of the money supply process is to affect the liquidity preference of the agents involved in it. Changing expectations are the norm, meaning that the single period theory of money proposed by horizontalists needs to be completed by a continuation theory along the lines suggested by structuralists. The primary purpose of the continuation theory of money is to investigate how the end of a single period relates to the next one. The expectations that determine the events of the next period are then strictly related to the events of previous periods. An important corollary to this interpretation of the debate on endogenous money is that the horizontalist approach and the structuralists approach are not incompatible and actually together they form a more comprehensive theory. Each approach has its own assumptions about the state of expectations of agents involved in the money supply process. This process of generalization is a characteristic feature of the encompassing approach Gerrard, , pp. In the following sections a formal model of endogenous money is developed and then used to examine the implications of horizontalists and structuralists having adopted different assumptions about the state of expectations of banks and the central bank. The parameters of the model are as follows: Several models can be set up, each corresponding to a possible functional choice for the key functions, i. The simplest functional forms considered here are constant, piecewise constant and linear. The basic idea behind these different forms is that the slopes of HS and CS capture the liquidity preferences of central bank and of commercial banks. This is the pure horizontalist case.

DOWNLOAD PDF HORIZONTALIST AND STRUCTURALIST ANALYSES OF ENDOGENOUS MONEY

Liquidity preference here means that over the business cycle there may be pressure on the short term interest rate and on the lending rate. The numeral indices j and k are then a simple way to capture the changes in the liquidity preference of those groups of agents. Depending on the value of those indices, the central bank and commercial banks determine the price at which the demand for monetary reserves and the demand for credit is accommodated. Compared to the pure horizontalist model, the price of credit and of monetary reserves is now determined by forces of demand and supply interacting within the credit market and the monetary reserves market. Again, in formula, we have: This possibility is best described by the general structuralist case. Basic equations for an endogenous money model Following the discussion of previous sub-sections, the supply of monetary reserves can be represented as: From the mathematical viewpoint, notice that the piecewise constant function CS 5 rk, k 5 0,1,. Clearly, if borrowing money would not cost anything, entrepreneurs would be tempted to demand more and more credit, i. This situation would be better modelled by taking the credit demand curve to be a hyperbola, with the horizontal C axis as an asymptote. Mathematically however, this would complicate the analysis while not really changing its ultimate meaning. The equilibria found in the following models would lie on the hyperbola rather than on the straight line 4 , though the following discussion would not be altered by this change. For these reasons in the following sections the form 4 is used. Evidently, by combining in all possible ways 1 and 2 there are nine possible situations that can arise, summarized in Table 1. Its symbol interpretation is as follows: The numbers in the brackets refer to the relevant Sections where those situations are discussed. Moreover, it is important to distinguish between single period analysis and continuation analysis. In order to discuss the differences between those two types of analysis a shift into the demand for credit is assumed. Equation 4 is then taken to move in a way parallel to itself, which corresponds to adjusting its Table 1 A Taxonomy of Functional Choices for the supply of Monetary Reserves and the supply of credit. In other words, 4 would get replaced by: The results are illustrative of the main propositions of the horizontalist approach. The analysis then moves to more complex cases and concludes with a discussion of the general structuralist case. Thus its coordinates are obtained by solving the system: Notice that the level that the corresponding variables attain when the system settles to the equilibrium P is labelled with the index 0. In this case there is no response from the central bank and the short term interest rate remains at the level i0. This is in fact a characteristic feature of the single period analysis used here.

Chapter 2 : Endogenous money: Structuralist and horizontalist - CORE

Fontana, G. (, forthcoming) 'Single period analysis and continuation analysis of endogenous money: A revisitation of the debate between horizontalists and structuralists', in Geoff C. Harcourt, Handbook of Post-Keynesian Economics, vol. 1, Oxford: Oxford University Press.

Chapter 3 : Endogenous Money, Central Banks and the Banking System: Basil Moore and the Supply of C

Horizontalist approach is initially advocated by Basil Moore 4 in the s and s that stresses the endogenous nature of money and reserves, arguing that " loans make deposits, deposits make.

Chapter 4 : Endogenous Money: Structuralist and Horizontalist

The endogenous nature of money is a fact that has been recognized rather late in monetary economics. Today, it is explained most comprehensively by post-Keynesian economic analysis.