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Economy**

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Abstract:

The micro-macro relation has always been a main research subject in macroeconomics, and Post Keynesians theorists, following Keynes's revolutionary contribution to the economic theory, deal with this interaction in a very distinctive way. In this paper we deal with some theoretical issues that are raised when we focus our attention to the accommodation in the macroeconomic level of the action of individual agents. We pay special attention to the decision process of the firm highlighting the generation of profits by the firm and its possibilities in the aggregate to explain economic growth.

Micro and Macro relations in a Monetary Production Economy[#]

Carmem Aparecida Feijo^{*}

The micro-macro relation has always been a main research subject in macroeconomics, and Post Keynesians theorists, following Keynes revolutionary contribution to the economic theory, deal with this interaction in a very distinctive way. Their concern is not to develop the microfoundations of macroeconomics or even the macrofoundations of microeconomics, but of searching the mutual influences of both fields, using microeconomics to shed light on motives, choices and strategies and macroeconomics to understand possibilities, constraints, and actual developments. As Professor Chick's state, in her *Macroeconomics After Keynes*:

The relationship of the observed behaviour of an aggregate like Firms or Households is not easily related to the plans or actions of its component agents. One problem arises from the potential conflicts between agents within an aggregate, for obviously, the behaviour of the aggregate will depend on the manner in which those conflicts are resolved. (Chick, 1983, p. 37)

In this paper we deal with some issues that are raised when we focus our attention to the accommodation in the macroeconomic level of the action of individual agents. We pay special attention to the generation of profits by the firm and its possibilities in the aggregate to explain economic growth. We are interested in exploiting two main aspects. One concerns the interaction between the firm and its environment, which limits present choices of courses of action and supplies elements on which firms form expectations about the future. The other one, as proposed by Post Keynesian theory, deals with the interaction of firms with other firms and other economic agents, including banks and the State. The success of plans depends not only on the appropriateness of a firm's decision, but also on the decisions and behaviours of other economic agents. In this context modern market economies tend to develop fragile financial structures and it is to the macroeconomic theory to provide the tools to interpret its short and long run path of growth.

In this paper we discuss the importance of the profit generation and the interaction of firms and banks to sustain stable aggregate growth. We develop this subject presenting in the next Section the main well-known fallacies of composition, among them profits generation and profits distribution in market economies. In Section 2 we discuss the relation between the profits of a firm and aggregate profits. The interaction of firms and banks is introduced in Section 3 and in Section 4 we discuss the generation of profits and validation of debts. We finalise our discussion with Minsky's financial instability hypothesis in Section 5. A summing up is in Section 6.

1. Fallacies of Composition

The assumption of uncertainty in the Post Keynesian model does not imply the absence of rules of economic behaviour of established standards of rational economic behaviour. On the contrary, in a world of uncertainty, institutions, rules and conventions emerge to support

[#] A slightly different version of this paper has been published as chapter 18 in *Methodology, Microeconomics and Keynes: essays in honour of Victoria Chick*, by P. Arestis, M. Desai and S. Dow (editors), Routledge Frontiers of Political Economy, London and New York, 2002.

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decisions. In this sense, as noted by Dow, Post Keynesians try to combine the acknowledgement of individual freedom from deterministic rules with the recognition that in reality there are standards of behaviour that have their origin in society rather than in the individual itself:

Given the social conditioning involved both in individual's motivation, and in their expectations formation, Keynes's use of psychology was not individualistic. By taking account of the diversity and creativity of individual behaviour, Keynes did not opt for the atomism of individualistic psychology, rather he opted for a combination of individualistic and social psychology. (Dow, 1985, p. 100.)

Macroeconomics emerges as a field of study when it is recognised that the logic of aggregate behaviour is not simply given by the sum of individual actions. It assumes that there is a logic of a system's behaviour that both transcends and limits the possible courses of actions of its elements. In other words, macroeconomics is created when "fallacies of composition" are identified and shown to be theoretically significant.¹

Fallacies of composition emerge from the fact that external restrictions on individual choices and actions are, in many cases endogenous to an aggregate approach of the economy. Budget constraints, size of markets, for example, are given to an individual decision-maker but are really determined by the action of agents as a whole.

The best known fallacies of composition in macroeconomics are those related to the effects of an increase in the propensity to save on the rate of capital accumulation and of a reduction in money wages on the level of employment.

In the firm's case, it can be shown that an act of saving unaccompanied by an act of new investment rather than stimulating capital accumulation is more likely to lead to a reduction in the level of employment. While it is reasonable to suppose an individual can get wealthier by saving increasing proportions of his income, if everybody does the same society will end up impoverished: aggregate demand will be reduced, and employment will fall.

Keynes emphasised that it is possible for an individual to increase his saving by buying either a newly created asset or an old asset. If a new asset is created, investment is taking place, and this is what really counts for capital accumulation. Otherwise, the savings of that individual equals the dissaving of somebody else who is selling an old asset.

This happens because income is created when saleable production takes place. If savings increase beyond the non-consumable share of production, markets will shrink and with it, aggregate income, forcing some people to dissave. Therefore, if it is possible for any individual to save as much as he wants from its income, for the economy as a whole it is not possible to save more than is being invested. An increase in the propensity to save, without an increase in net investment, can only be equivalent to the losses of firms with unsold production or unused capacity. According to Chick, for the economy as a whole, it may be better to eliminate the propensity to save function and keep the concept only in the micro level where such a choice is possible (Chick, 1983, chapter, 9).

¹ According to Dow, "The fallacy of composition is a central feature of any discussion of microfoundations; according to this fallacy, individual actions, if common to a large number of individuals, will generate an outcome different from what was intended by each." (Dow, 1985, p. 82.)

Something similar takes place in the second case. As emphasised by both Keynes and Kalecki, a reduction in the money wages of the workers of a given firm may improve the latter's profitability. However, a general reduction of money wages will lead to a contraction of aggregate demand. Prices will go down, and profits will be reduced.²

What these cases point to is the necessity to verify the implicit requirements for a given plan, at the macro level, to be successful. Aggregate results must be explainable in terms of the decisions and acts of the agents that actually caused them. On the other hand, atomistic individualism misses the essential point that goals and methods are not only historically and institutionally specific but also that they are restrictions on individual behaviour explainable only at the macro level.

To the well-known fallacies of composition mentioned above we add another one. Profits are the goal and fuel of economic expansion in a monetary economy in which production is organised by private firms. Profits, however, depend directly on the income distribution and so on what accrues to firms to accumulate. Income distribution, therefore, is a subject that requires an integrate micro-macro treatment. In the remainder of the paper we will attack this question, examining the macro-restrictions on the formation and accumulation of profits by firms.

2. The profits of a firm and aggregate profits

Growth is explained in the concept of monetary economy as the result of accumulation decisions made by a particular social group, capitalists. Therefore, as classical political economy has stressed, income distribution and growth are essentially connected subjects. On the other hand, income distribution, particularly the share of income retained by firms depend, as Post Keynesians have emphasised, on the profile of aggregate demand.

Let us suppose that firms set profit targets when making their pricing decisions aiming to generate internal funds for expansion. Those profits are attained when firms are successful in selling the volumes they expected. Thus, the confirmation or disappointment of profit expectations (and, with these of planned forms of financing investment) depends on correctly estimating the behaviour of sales during the relevant period.

For an individual firm to see its sales plans confirmed it is sufficient that its own demand be sustained. But the demand for any specific good or service depends on its buyers being able to implement their purchase plans of which that good or service is an element. In a specific market, of course, it may be largely a question of chance, that is to say, about how many buyers a firm attracts. The deeper in detail one delves, the more arbitrary becomes the distribution of demand. In what follows, we will assume that the demand for each market is related in a stable way to aggregate demand, given the relevant income-elasticities, and that the distribution of demand within a given market is such as to keep market shares constant. On these assumptions, then, both aggregate and individual profits are dependent on the level of aggregate demand.³

² See Keynes, 1936, chapter 2 and Kalecki, 1971, chapter 14.

³ The assumption of given market shares may be seen as a variant of the procedure of Keynes in the General Theory, who assumes a fixed production structure.

Kalecki has shown, using national accounting identities, that, on the assumption that workers consume all their income, aggregate profits are equal to capitalists consumption plus private investment plus budget deficit of the public sector and plus the balance of external transactions (Kalecki, 1971, chapter 8).

For a closed economy without government, the confirmation of profit expectations by firms depends on, at least partially, the consumption expenditures of capitalists and on the investment expenditures of firms themselves. There is then a complex interconnection between the micro and macro levels of analysis at this point: firms form, at the micro level, expectations of sales to obtain target profits; the confirmation of these expectations depends, on the other hand, on the firms themselves spending the amount necessary to validate the sales expectations.

In equilibrium therefore, expectations, have to be such as to induce the right amount of expenditure that will validate them. Out-of-equilibrium positions can then be described as being those on which expenditures that are induced by expectations are not those necessary globally to validate the original sales expectations. In this case, the amount of profits generated by the multiplication of unit profit (profit per unit sold) for the number of items sold, will not be what firms expected.

The point is that aggregate profits are generated by aggregate demand, not by the mark-up decision of the firm. Pricing determines the distribution among firms of aggregate profits, but not their generation.

The actual generation of profits thus depends on there taking place enough acts of spending on consumption goods and on investment goods. As long as the marginal propensity to consume is smaller than one, growth becomes a condition of survival of firms also in this sense.

If firms entertain optimistic expectations, as to the possibility of earning profits from their activities, they will issue liabilities to absorb funds and extend their scale of operations. This introduces a crucial requirement of stability operating in the economy related to the validation of expectations. Capitalists firms issue liabilities on the expectation of future cash inflows. If these flows do not materialise, insolvency may follow.⁴

In sum, for firms to be able to obtain the receipts that will allow them to validate their debts and to earn the profits they expected it is necessary that the right volume and structure of aggregate demand to be generated. We can consider, with Keynes and Kalecki, that consumption expenditures are induced by income. This means that, in a closed economy without government, aggregate profits depend on investment. If investments are not realised, not only some firms have losses but also, through the financial linkages, suppliers of funds are hurt.

Investment expenditures perform a strategic role, then, because on them depends the validation of profit expectations by firms, but also because they are autonomous with respect to current income. In Keynesian theory, to be autonomous means that investment decisions are

⁴ Insolvency, nevertheless, need not be the only possible outcome. Steindl (1976, pp. 112-4) described an adjustment of balance sheet on the liabilities side that may be necessary when expectations of cash inflows are disappointed. An increase in indebtedness may avoid the curtailment of the firm's current expenditures. The same factor, however, may depress plans for future expenditures.

independent of current income, both because investment is induced by expectations of future profits and because it is sustained largely by discretionary funds, accumulated assets and external funds obtained from credit institutions. According to Keynes (1973, vol. 14, pp. 215-23), banks perform a crucial role in making investment possible.⁵

3. *The role of Banks*

Banks and other financial institutions are connected to fluctuations in output and employment as they “hold the key position” to stimulate business. For Keynes credit is a necessary condition, although not the only one, for firms to implement their production and investment plans, as it creates the purchasing power firms need to start their activities. In his words,

The demand for liquidity can be divided between what we may call the active demand which depends on the actual and planned scales of activity, and the inactive demand which depends on the state of confidence of the inactive holder of claims and assets; whilst the supply depends on the terms on which the banks are prepared to become more or less liquid. In a given state of expectation both the active and the passive demands depend on the rate of interest. So sometimes does the supply; but not necessarily, for the banking system may aim at the quantitative regulation of money without much regard to the rate. (Keynes, 1973, vol. 14, pp. 221-2.)

When defining “active and inactive” demands for money Keynes introduces a fourth motive (besides the transaction, precautionary and speculative motives as defined in *The General Theory*, chapter 15), the “finance” motive, which allows him to discuss the role of the banking system in generating liquidity.⁶ It is also through this discussion that Keynes makes his position clear about the dissociation between changes in the level of current activity and the level of ex ante savings, that is to say, the process of financing investment decisions.⁷ According to his view, the interregnum between the decision to invest and its achievement is bridged by “Credit, in the sense of “finance”, [which] looks after a flow of investment. It is a revolving fund which can be used over and over again”(ibid, p. 209).

In this sense, in order that the entrepreneur may feel himself sufficiently liquid to be able to embark on the transaction [a new investment], someone else has to agree to become, for the time being at least, more unliquid than before (ibid., p. 218), and so banks and other financial institutions are in a position of regulating the pace of new investment.

In considering the supply of finance Keynes writes,

The entrepreneur when he decides to invest has to be satisfied on two points: firstly, that he can obtain sufficient short-term finance during the period of producing the investment; and secondly, that he can eventually fund his short-term obligations by a long-term issue on satisfactory conditions.

...

⁵ Chick (1992, chapter 12) describes the evolutions of the banking system, connecting its behaviour with changes in the theory of saving, investment and interest rate.

⁶ See also Chick (1992, chapter 10).

⁷ After the publishing of *The General Theory* Keynes wrote two articles where he made clear his point about the irrelevance of ex ante saving in financing investment. These articles are reprinted in volume 14 of his *Collected Writings* (pp. 201-223). As already mentioned, this point is developed by Chick, 1983, chapter 9.

Thus the terms of supply of the finance required by *ex ante* investment depend on the existing state of liquidity preferences (together with some element of forecast on the part of the entrepreneur as to the terms on which he can fund his finance when the time comes), in conjunction with the supply of money as governed by the policy of the banking system. (Ibid p. 217, his emphasis.)

To the need for funding we will return later. To provide finance, according to Keynes, is a function of banks. Banking institutions fix their policy of lending money according to, at least, two main factors. One is the amount of reserves in cash thought to be “safe” in relation to their liabilities. The second factor is that banks will provide loans depending on the margins of safety they can guarantee for their application.

Banks cannot know how their loan is being used, and so this is a sort of risk always involved in the operation. But the main risk incurred by banks is about the liquidity of their loan. As Keynes puts it “a loan may be liquid from the point of view of an individual banker, because he knows he can get his money back if he wants, although the proceeds of it are being employed in fixed forms”. (Keynes, 1973, vol. 13, p. 7.)

Uncertainty about future prospective yields may erode the safety margins, causing a contraction in the supply of loans. Banks, then, in order to avoid a devaluation of the market value of their assets, will try to recover their position, and a way of doing this is by refusing to provide new loans, either absolutely or, more likely, in relative terms, raising interest rates of safety margins requirements. So, although banks can create credit, there is a limit to the process given by their own liquidity preference.

To take bank’s liquidity preference into account also implies that credit is not offered in an indiscriminate way; customers are selected according to the evaluation by the bank of the future profitability of the business or, secondarily, the liquidity of the assets it can offer as collateral. Moreover, the disposition to expand or contract credit depends on expectations about the performance of the whole economy.

This arguing about the position of banks to expand credit at their will suggests that the supply of money is, at least in part, endogenously created (Chick, 1983, chapter 12).⁸ So, being firms, banks make up their decisions based on expectations and the assumption that money is endogenously created becomes an additional element to amplify the potential instability of the economic system.⁹

4. Aggregate Profits and the Validation of Debts

Since decisions are made under uncertainty, entrepreneurs must take risks when engaged in productive activity. Firms will try to bring risks to a minimum by gathering as much information as they can from their environment. As in a monetary production economy information about the behaviour of the markets is not complete, the spaces left unfilled are to be completed by “figments of imagination”(Shackle, 1979). Stability of business will then depend on the degree of confidence entrepreneurs attaches to their choices and confidence is built based on the validation of previous plans and expectations.

⁸ An interesting discussion about the relevance of liquidity for the determination of aggregate demand is in Chick (1979, chapter 4).

⁹ Anything that increases the elasticity of the credit system increases potential instability. This potential instability is further increased by the role of the Central Bank in modern market economies.

Two sorts of risks are actually incurred by entrepreneurs when deciding to invest. One deals with the behaviour of their markets that will or will not allow them to validate their production and pricing decisions. Another one deals with the validation of their debts, that is to say, with the ability of the firm to keep the value of its assets balanced with that of their liabilities.

The way that this balance can be assured is through the maintenance of an equilibrated cash flow along the periods. That is to say that the extent to which firms will be able to keep their business running in equilibrium will depend at first instance, on their ability to generate a cash inflow that is enough to meet their debt commitments, and, on a second instance, on their ability to keep their borrowing capacity in the financial market. At each moment in time the degree of vulnerability of the business will be given by the financial situation of the firm that will allow it to have more or less room for manoeuvre and keep its commitments updated in case production or sales expectations are disappointed.

So, the point is that in a monetary production economy even if individual profit expectations are not promptly validated by demand, firms may survive as long as the financial system is able to meet their demands for cash. This is the Minsky's assumption that the financial system in modern economies amplifies the movements of aggregate output as it provides resources to firms to produce and invest. As Minsky puts it "A fundamental attribute of our economy is that the ownership of assets is typically financed by debts and debts imply in payment commitments" (Minsky, 1986, p. 42).

At the macro-level then, the extension to which aggregate profits are sufficient to validate aggregate debts is a crucial factor to give stability to the growth of the economic system.

Minsky postulates that market economies are unstable in their natures. Uncertainty about the unknown future is the ground for instability. But what allows uncertainty to spread over the economic system, generating instability is the financial links economic agents make among them. Once investment in long lived assets relies on external finance to be carried out, a synchronisation between payment on debts and receipts of income must occur to keep the functioning of the system in a smooth basis.

All this means that on discussing macroeconomic stability one should pay attention not only to indebtedness, but also to the temporal profile of debt payment commitments for they are crucial to determine the nature of financial pressures a firm may suffer. At the firm level the financial postures that may be adopted - hedge, speculative or Ponzi – determine the health of the business. In the macro – level, "The mixture of hedge, speculative and Ponzi finance in an economy is a mayor determinant of its stability"(Minsky, 1986, p. 209).

The changes in the aggregate temporal profiles of payments are at the root of the financial fragility and instability post keynesian economists attribute to modern capitalism.

5. Financial Instability

In a period of prosperity the degree of confidence attached to expectations is increased as decisions undertaken in the past prove to be correct. Entrepreneurs become more willing to take risks as they wish to expand their business. More ambitious investment projects are

pursued. Financial institutions in such a context play their role of supporting this greater ambition of the private sector expanding by expanding the supply of credit.

A period of prosperity may begin with hedge units being dominant, and so liquidity is plentiful as the asset structure is heavily weighted by money or liquid assets and the quasi-rents yield by current expenditure on capital assets are high. The degree of indebtedness is low, as the debt commitments are low in relation to the expected yields of capital assets. The interest rate structure is such that it encourages investment in fixed assets as “short-term interest rates on secure instruments will be significantly lower than the yields from owning capital”(Minsky, 1986, p. 211). The confirmation of expectations about sales revenues and the robustness of the balance sheet of firms encourage them to take more ambitious plans of investment.

The passage from a situation where hedge units dominate to a situation where speculative units dominate occurs because capitalists and bankers are seeking for more profit opportunities to be exploited.

As far as this process of “money now in exchange for money later” continues the margins of safety involved in financial contracts, that is to say, the proportion of money and other easily negotiable financial instruments to the necessity of cash to fulfil contracts obligations, are being reduced. At the same time the demand for funds tends to become more inelastic, because investment in capital assets is a time-consuming activity and before an investment project is completed, it has no value as determined by the future streams of profits. Because of that, a rigidity in the demand for funds is likely to occur and so an increase in the cost of finance, what implies that an increase in the interest rates diminishes (or even eliminates) the margins of safety.

As a boom develops, the supply curve of finance then becomes less elastic. But, while an investment boom is taking place, further credit can be found, however, at a higher cost. An increase in the cost of finance leads firms to commit larger portions of their expected cash flow to debt servicing. This means that portfolios become more speculative and more fragile. As long as profits are rising, increasing indebtedness will be stimulated and lower margins of safety will be accepted. For speculative finance to continue it must be expected that financial resources will remain available so firms engaged in speculative and Ponzi finance can refinance their debts.

This trend changes when the degree of confidence on the ongoing situation decreases. In general this means a decline in the net expected cash inflow and eventually a short fall of cash and an increase in demand for liquid assets (liquidity preference rises). An unexpected shortfall of cash, an increase in the interest rate (and so an increase in the supply price of output and a decrease in the demand price for investment), together with a change in the degree of confidence about the future behaviour of business will make speculative units review their desirable degree of indebtedness. As Dow writes, “Mistaken expectations are costly when financing is highly geared”(Dow, 1986-87, p. 246). This will lead firms with high indebtedness to reduce their investment expenditure in an attempt to reduce their dependence on external finance.

This attempt of individual firms to improve their degree of indebtedness may, as suggested by Steindl,

not put matters right. Assuming that outside savings are relatively inelastic, the further drop in the accumulation of real capital will not be accompanied by a corresponding drop in the accumulation of outside savings, and consequently internal accumulation must drop more than total capital accumulation, and the entrepreneurs will find that their relative indebtedness (gearing ratio) continues to grow. In other words, the impact of any reduction in investment owing to the inelasticity of outside saving must be mainly on internal accumulation. (Steindl, 1976, p. 114.)

So, a reduction in the rate of investment of individual firms slows down the growth of aggregate demand, which implies in a slower growth of aggregate profits.

Furthermore, a shortfall of profits in face of the needs for cash to validate debts and a decrease in confidence in business, increases furthermore the cost of additional debt (as demand for liquidity increases) and the weight of speculative and Ponzi units in the economic system. The consequence of portfolios becoming more speculative is that the economic system becomes more vulnerable to shocks or to the disappointment of expectations. These will have an amplified negative effect on further economic decisions. This is an environment propitious to a recession or depression.

To sum up, in modern economies, endowed with a sophisticated financial market, the disappointment or confirmation of expectations about profits will affect the functioning of the system depending on the degree of indebtedness of economic units. When hedgers are predominant a stimulus to become more speculative is given by competitive pressure. Financial institutions play their role increasing credit and this process is due to have an end when the degree of confidence becomes threatened. As Minsky expresses this point:

Because of speculation and the endogenous evolution of monetary and financial practices, a capital-using market economy exhibits a diversity of behavioural patterns. In particular, financial instability – both upward into an euphoric boom and downward into a deep debt-deflation depression is an endogenous phenomenon. (Minsky, 1977, p. 307.)

The path of growth to be followed by the system as a whole will then depend on how financial institutions and economic policy react to changes in the degree of confidence. The dynamics of the system depends then not only on how much entrepreneurs decide to spend in new capital equipment, but also on how they finance new investment plans. In other words, it is not only the rate of investment that matters, but also how portfolios change to accommodate different rates of growth of aggregate demand.

One should notice that the preceding discussion, based on the well-known concepts proposed by Minsky, suggests an approach alternative to Keynes's distinction between finance and funding, referred to in discussing the role of banks. Instead of two clear cut sequentially defined procedures as suggested by Keynes in an approach that sharply distinguishes the role of banks from that of other financial institutions, Minsky opts for a more general approach in which many types of financial procedures are possible.

6. A summing up

In this paper we turned our attention to some issues trespassing the borders between micro and macroeconomic analysis. For Post Keynesians, under the non-probabilistic uncertainty

assumption, the validation of individual expectations is not *a priori* secured, and some accommodation of plans at the macro level must probably take place. The study of his process of accommodation is on the core of macrodynamics.

The main variable to explain growth is the rate of investment in fixed assets, which is autonomous in relation to current income and governed by long term profit expectations of individual firms. The confirmation of profit expectations, on its turn, depends on the volume and structure of aggregate demand being generated, according to the expenditure plans of economic agents. In this sense we identified a complex interconnection between the micro and macro levels of analysis, and Post Keynesian theory pays particular attention to the links between capitalist firms and other economic agents (in special banks and financial institutions) and capitalist firms among themselves.

Investment expenditures made up by individual capitalists will determine how fast economic system will grow, but for Post Keynesian theory it is also relevant to discuss the path of growth, that is to say, how stable it is. This discussion touches an important crossing between micro and macro – how investment in fixed assets is financed. The interrelation between firms and financial institutions is expressed on the conditions in which finance on fixed assets is agreed.

Capitalist firms issue liabilities on the expectation of future cash inflow. Banks, because they can create money, have the flexibility of accommodating demand for funds by firms. Bankers are, like businessmen, subject to the same expectational climate to make up their decisions and as they are profit seeking institution, modern market economies tend to be unstable.

A period of high expectations and high liquidity is propitious for more aggressive financing practices to develop. This will lead to more speculative financing, that is to say, to the use of short-term debts to finance long term positions. Margins of safety are deteriorated and changes in expectations will lead to new demands for funds being rejected. A phase of more conservative financial practices then follows. So banking practices can be “highly disruptive”, but in economic systems with long –lived capital assets they are needed to make it dynamic.

Bibliographical References

Chick, Victoria. *The Theory of Monetary Policy*, revised edition, Oxford, Basil Blackwell, 1979.

Chick, Victoria. “Monetary Increases and Their Consequences: Streams, Backwaters and Floods”, *On Money, Method and Keynes*, chapter 10, London: MacMillan, 1992.

Chick, Victoria. “The Evolution of the Banking System and the Theory of Saving, Investment and Interest”, *On Money, Method and Keynes*, chapter 12, London: MacMillan, 1992.

Chick, Victoria. *Macroeconomics After Keynes: a Reconstruction of the General Theory*, Cambridge (Massachusetts), M.I.T Press, 1983.

Collected Writings of John Maynard Keynes, *The General Theory and After. Part I: Preparation*, vol. 13, London MacMillan.

Collected Writings of John Maynard Keynes, *The General Theory and After. Part II: Defense and Development*, vol. 14, London: MacMillan.

Dow, S. *Macroeconomic Thought: a Methodological Approach*, Oxford, Basil Blackwell, 1985.

Dow, S. “Post Keynesian Monetary Theory for an Open Economy”, *Journal of Post Keynesian Economics*, vol. 9, no.2, 1986-87, pp. 237-57.

Kalecki, M. *Selected Essays in the Dynamics of the Capitalist Economy*, Cambridge, Cambridge University Press, 1971.

Keynes, J M. *The General Theory of Employment Interest and Money*, New York, Harcourt Brace and World, 1936, 1964.

Minsky, H. *Stabilizing an Unstable Economy*, New Haven and London, Yale University Press, 1986.

Minsky, H. “An Economics of Keynes’s Perspective of Money”, in *Modern Economic Thought*, S. Weintraub (ed.), Philadelphia, University of Pennsylvania Press, 1977.

Shackle, G L S. *Imagination and the Nature of Choice*, Endinburgh, Endinburgh University Press, 1979.

Steindl, J. *Maturity and Stagnation in American Capitalism*, 2nd edition, New York, Monthly Review Press, 1976.