Joan Robinson and Keynes: finance, relative prices and the monetary circuit

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Joan Robinson’s views on credit and money are discussed only rarely. Of late, however, some Post-Keynesians have sought to revive these views, claiming that Robinson was one of the original contributors to the theory of endogenous money, post Keynes. This paper has two objectives. First, it seeks to develop Robinson’s views on credit, money and finance and to show that not only did she have a clear understanding of the theory of endogenous money, but that she also held views akin to the theory of the monetary circuit. Second, the paper addresses Robinson’s dismissal of the problem of relative prices and the conventional theory of value. Once again, it shows that Robinson’s position is connected closely with the model of the monetary circuit as a basis of her theory of accumulation.

1. Introduction

Throughout her long and distinguished career, Joan Robinson contributed in important ways to Post-Keynesian and other heterodox traditions. She had a deep understanding of economics and a profoundly critical mind. She took neoclassical ideas seriously, if only to turn them upside down. Robinson’s Accumulation of Capital (1956) remains one of the most fundamental books in the Post-Keynesian tradition. The centenary of her birth presents an apt occasion to reflect on her many contributions to economic theory and policy.

Recently, Rochon (2001) and Rochon & Vernengo (2001) have explored Robinson’s views on credit and money and have found a rich institutional theory. Rochon (2001) has even argued that Robinson (1956), rather than Minsky (1957a, b) or Kaldor (1970), is to be credited with having first developed post-Keynes views on endogenous money. Unfortunately, those views, while central to The Accumulation of Capital, have been ignored by Post-Keynesians. Neither Turner (1989) nor Rima (1991), for example discuss credit or money in Robinson’s work, while Feiwel’s (1989a, b) Festschrift volumes contain only a
few articles dedicated to her views on credit and money (see Dillard, 1989; Graziani, 1989).

Many economists, in fact, see Robinson’s views on credit and money as fairly orthodox or are dismissive of them altogether. For instance, Dillard (1989, pp. 599–600, 605) writes that she had only a ‘minimal’ interest in money and that ‘money occupies no significant place in her extension of the General Theory to capital accumulation. … [She] ignored the essential properties of money in the money-making process of business firms. … A monetary theory of production was of little interest to her, perhaps [she was even] hostile to the concept.’¹ Lavoie (1991, p. 264) once argued along these lines too, claiming that in Robinson (1956), the ‘monetary apparatus appears to be rather traditional’—a view he has recently changed however (see Lavoie, 1999).

We believe that this view is incorrect and amounts to a misreading of Robinson’s Accumulation of Capital. Robinson had a rich understanding of the role of banks, credit and money, and of the creation, circulation and destruction of money. The present paper continues the work first undertaken by Rochon (2001) and Rochon & Vernengo (2001), which showed that Robinson endorsed a theory of endogenous money. We now extend this analysis to show that she also held views that in fact are close to the theory of the monetary circuit.

Our analysis begins at the very start of The Accumulation of Capital, where Robinson (1956, p. vi) explains that her aim is to extend ‘Keynes’s short-period analysis to long-run development.’ To achieve this she follows the example of Harrod who, according to Robinson, ‘dismisses the whole problem of relative prices and sets out an analysis of the over-all development of an economy without paying attention to the theory of value.’ She rejected the neoclassical theory of value; what then is the framework underpinning Robinson’s work?

Here we show that Robinson develops her theory of effective demand and growth along the lines of the theory of the monetary circuit. This approach denies any relevance to the exchange economy depicted by general equilibrium theory or to the correlated standard theory of value, and instead promotes the concept of a monetary production economy advocated by Keynes (see Graziani, 1989).

Historically, the concept of the circuit in economics was the hallmark of the Physiocrats of eighteenth century France, who sought to analyse how wealth is created and then distributed among the different social classes. The Physiocrats viewed production as a circular process involving advances, i.e. capital expenditures (monetary and real), which are repaid when goods are produced and then sold. Since then, this conception has been pushed into the background, without being explicitly discarded. For instance, Schumpeter and Keynes, to mention two twentieth-century economists, undoubtedly made allowance for it but did not give it prominence. This physiocratic conception of production remained largely

¹ Feiwel’s argument rests on the fact that Robinson does not have an appreciation for Keynes’s Chapter 17. We believe this is certainly the case. But in contrast to Feiwel, we do not believe that implies that Robinson rejects the importance of money. Rather, she adopts an approach to credit and money that does not rely on the ‘characteristics of money’ as advocated by Keynes.
dormant as an analytical tool until the late 1960s when, in France and Italy, Alain Barre`re (1979), Bernard Schmitt (1966, 1984), Alain Parguez (1975) and Augusto Graziani (1988) undertook to revive it. They were inspired mainly by Keynes’s concept of a monetary production economy grounded in the principle of effective demand and the finance motive, and their intention was to highlight Keynes’s heterodoxy, and so to counter the so-called neoclassical synthesis. The concept of the monetary circuit, which arose out of this later work, refers to firms’ successive outlays (for productive factors) and receipts (from sales), and to the resulting formation and cancellation of money incomes. Robinson (1956, p. 5) alludes to this process in the very first pages of The Accumulation of Capital, when she refers to ‘the cycle of production and sales’.

In the next section, we consider more specifically how firms finance their production costs. This will allow us to ascertain that Robinson endorsed a theory of endogenous money and held views in accordance with the theory of the monetary circuit. Then in Section 3 we show that Robinson’s dismissal of the problem of relative prices is closely connected with her adoption of the main lines of the model of the monetary circuit as a basis of her theory of accumulation.

2. The Financing of Production Costs

French and Italian proponents of the theory of the monetary circuit begin their analysis by firmly anchoring Keynes’s finance motive within a monetary production economy, where uncertainty plays an important role. In such a setting, the hierarchy of production takes center stage. Production is a series of irreversible events set in historical time, where events follow each other in a series of successive steps. In particular, the production of goods requires that entrepreneurs secure access to a fund of finance before the start of production in order to pay for their factor costs, specifically wages.

This logic also marks Robinson’s point of departure. She insists on the monetary nature of capitalist economies, and emphasizes that institutions define the type of economy one is discussing (Robinson, 1956, p. x). In a monetary economy, ‘Institutions (such as Central Banks) and legal rules (such as laws regulating the issue of currency) play a large role.’ Robinson (1956, p. 26–27) sets out to ‘look through the veil of money to the realities behind it’. Barter systems are irrelevant, and ‘it is misleading to apply conclusions drawn from such an imaginary case to a capitalist economy. … Money, in one form or another, is a sine qua non. Thus money, regarded as an institution, is built into the system which we are peering through the veil of money values to see.’

Robinson’s analysis begins with the hierarchy of production. There are essentially three sectors in Robinson’s work: workers, banks and firms. But production involves a series of steps. First, firms must hire workers who agree to ‘lend [their] work’ (Robinson, 1956, p. 5), and so firms incur a debt that they clear by ‘disbursing wages from [their] fund of finance’. However, firms must borrow from banks in order to obtain the necessary finance, contracting a further debt that they clear upon selling their products on the market. At the beginning
of the production process, firms thus successively incur two debts: one to workers and the other to banks.

Hence, a monetary economy is an economy where wages are paid in money, thereby releasing money into active circulation. According to Robinson (1956, p. 26), ‘A wage economy requires money. An employer who is starting in business has to pay his workers before he has anything to sell, so that he must have a stock of purchasing power (finance) in some form or other before he begins’. Robinson (1956, p. 226) explicitly relates the creation of money to bank credit, which is then related directly to the level of wages in the economy:

The size of the stock of notes required for the economy as a whole depends on the value of the weekly wages bill. … When employment is increasing (or money wage rates rising) the entrepreneurs are paying out every week more than they received from last week’s sales, so that the entrepreneurs, taken as a whole, are continually increasing their indebtedness to the banks, and the circulation increases as required. When the wage bill is decreasing, bills are retired and the circulation is shrinking.

These views are wholly consistent with the Post-Keynesian theory of endogenous money (see Moore, 1988): money is created in response to firms’ demand for credit. Thus, the notion of finance and the endogeneity of money are closely linked to each other.

Moreover, Robinson is careful to trace the flow of money as it is generated through the process of production and flows into the hands of workers (when wages are paid), and refluxing back to firms and banks in the final process:

If we could, so to say, stain a particular volume of \( X \) units of expenditure and trace it through its future course, we should see it generating income and expenditure on consumption, gradually leaking into savings as it flows its own way. … The process of investment, through saving, is always recreating, with a time lag, the finance that is absorbing it. The new wealth has partly taken the form of gross undistributed profits to firms, and has partly accrued to rentiers. Some is held in cash, some in securities and some has repaid bank loans. (Robinson, 1961, p. 133)

The reflux principle is thus key to the alternating process of money creation and destruction depicted in accordance with the theory of the monetary circuit. Once advocated by the Banking School of the eighteenth century, and later endorsed by modern circuitists, this law holds that the quantity of money can never be in excess supply. The stock of money in existence is the difference between the outlays of firms and the repayment of bank loans (see Robinson, 1956, p. 236). And ‘If [banks] issue more notes than are required for use as a medium of exchange, the excess returns to them as deposits or in cancellation of bills’ (Robinson, 1956, p. 234). For Robinson, this is especially true: ‘The quantity of notes outstanding is continuously being adjusted to the requirements of circulation’ (Robinson, 1956, p. 227) because entrepreneurs reduce their outstanding loans when they find themselves with more money than they need, paying their loans off when they are falling and not renewing them:

At any moment the outstanding amount of notes outside the banks is the difference between notes issued in the past and those returned as deposits or repayment of loans. Since notes yield no interest to their holders, while a
return of notes to a bank means receiving interest payments (on a deposit) or
a saving of interest payments (on a debt) the outstanding amount of notes
cannot exceed the amount that is required for convenience in circulation.
(1956, p. 226)

Of course, the degree of reflux to firms will depend on consumers’
spending. As firms sell their goods, money flows back to firms. If households
hoard their saving, firms will not be able to recoup their initial outlays. Robinson
(1956, p. 249) had the same view: ‘From the point of view of entrepreneurs,
taken as a whole, the distinction between consumer’s outlay and consumers’
saving is quite sharp. Outlay means receipts of money by the entrepreneurs,
while saving by consumers means an excess of money outlay by entrepreneurs
over their receipts and an increase in their net indebtedness.’ This is exactly the
circuitist position (see, for example, Lavoie, 1992, p. 155, and Rochon, 1999,
p. 36).

An obvious question arises: where then does this necessary finance come
from? Following Keynes, Robinson (1956, p. 276) is clear that savings never
finance investment:

It is necessary to guard against the confusion of thinking of rentier thriftiness
as providing finance for investment. … It does not help by providing finance.
So far as finance is concerned, rentier expenditure, by generating profits,
provides it in a more direct way than saving, which obliges entrepreneurs to
borrow if they want to maintain future investment.

In line with Keynes, Robinson rejects the notion of a supply of loanable funds
that constrains investment spending. Since savings are the result of prior
investment, savings cannot finance production. Instead, the banking system
creates the necessary finance. Robinson adopts these Keynesian insights:

Loans made to one individual reappear as deposits in the accounts of others to
whom he has made payments. Thus as well as taking part in the business of
supplying finance to borrowers, the banks provide a convenient medium of
exchange for settling debts. (Robinson, 1956, p. 11)

The notes now circulating came into existence as the results of loans from
banks to entrepreneurs, who pay out wages in advance of receiving the
proceeds of selling the goods which the workers produce. (Robinson, 1956,
p. 226)

There can be little doubt that Robinson is on the same wavelength as Keynes and
his circuitist followers.

According to Robinson, banks respond to the demand for finance. There
cannot be a loan without a prior demand for it. Moreover, Robinson also argues
that banks do not supply credit blindly. While ‘In principle, any rate of
accumulation can be accommodated by any volume of notes’ (Robinson, 1956,
p. 241), in reality, banks try to lend only to creditworthy customers; the supply
of bank credit depends on the ‘subjective attitude’ of bankers, and the ‘strictness
of the banks’ standards of credit-worthiness.’ Robinson (1952, p. 29) took this
position earlier when she wrote that ‘the amount of advances that banks make
is limited by the demand from good borrowers.’ This imposes ‘a more or less
definite limit to total borrowing power’ on entrepreneurs (Robinson, 1952,
p. 244). In later writings she would argue that ‘Finance … will not be forthcoming unless it can secure a profit, that is, an excess of product over the payments made to the factors of production’ (Robinson, 1960, pp. 61–62). All of this is wholly consistent with the horizontalist position (see Moore, 1988).

3. Circuit Theory and Robinson’s Dismissal of the Problem of Relative Prices and the Conventional Theory of Value

Having shown in the previous section that Robinson espoused not only the notion of endogenous money, but also the basic principles of the monetary circuit, what can we say about her dismissal of the problem of relative prices and the conventional theory of value? Is Robinson’s position in close relation to the theory of the monetary circuit? To answer these questions, let us consider the principle of effective demand, which is central to this theory.

The principle of effective demand allowed Keynes to argue that production processes begin with decisions made by entrepreneurs regarding the quantities of goods they are going to produce and the amount of employment they are going to offer. To make these decisions, entrepreneurs compare prospective costs with expected proceeds from sales, with a view to maximizing their profit; that is, the excess of proceeds over costs. Robinson endorses this view and, in accordance with Keynes, she also emphasizes that expectations are formed under conditions of fundamental uncertainty: ‘Investment decisions have to be taken in the light of guesses about an uncertain future. … In reality, to find the expected rate of return which governs investment decisions is like the famous difficulty of looking in a dark room for a black cat …’ (Robinson, 1956, pp. 191–192).

Robinson develops her arguments regarding prices in a way that is also coherent with Keynes’s theory. She defines what she calls the ‘normal price’, which ‘consists of prime cost, amortization and profit at the ruling rate on the capital invested, when plant is being worked at normal capacity’ (Robinson, 1956, p. 185). When the demand for goods exceeds this normal capacity, entrepreneurs are in a ‘seller’s market’, and prices and profits rise. In the opposite case, ‘the entrepreneurs are in a buyer’s market, and it is impossible for them all to be earning the expected level of profit’ (Robinson, 1956, pp. 188–189). Prices are determined on goods markets and, depending on supply and demand, they do not necessarily conform to entrepreneurs’ expectations.

To grasp the novelty of Robinson’s—and Keynes’s—views in comparison to the neoclassical theory, let us examine with a critical eye the way Keynes’s principle of effective demand has been commonly interpreted. Then we shall connect this point to the financing of factor costs examined in Section 2.

In order to expound the principle of effective demand, Keynes used his now familiar aggregate demand and supply functions, as developed in Chapter 3 of The General Theory. He defined the expected proceeds as a function of the employment offered, which he called the ‘Aggregate Demand Function’. He also defined the proceeds necessary to make good the outlays of entrepreneurs, and pay them a maximum profit, as a function of the employment offered; he called this the ‘Aggregate Supply Function’ (Keynes, 1936, p. 25). The standard
interpretation among economists trained in the neoclassical tradition is that Keynes’s theory determines employment as a result of an adjustment process between supply and demand, as also advocated in neoclassical theory. Keynes’s originality, it is argued, lies in the idea that quantities adjust rather than prices. This interpretation, however, is questionable. Keynes clarifies his position in a series of 1937 articles (Keynes, 1937a, b) on the theory of the rate of interest published in the Economic Journal, and in lectures (Keynes, 1937c) he gave that same year. In these articles and lectures, contrary to what would become the common interpretation of his theory, Keynes highlights that the principle of effective demand does not amount to a market process that determines employment (and so output) at the point of intersection of supply and demand functions.

In sharp contrast to standard demand functions, the ‘Aggregate Demand Function’, as defined in The General Theory, does not represent purchase decisions that buyers (individually or collectively) are prepared to make, given prices. In fact, according to Keynes, the general public does not make ex ante decisions as to the part of its income it will spend on consumption or will save. As he argues (Keynes, 1937a, pp. 182–183), ‘Ex ante decisions in their influence on effective demand relate solely to entrepreneurs’ decisions.’ Employment is solely determined by entrepreneurs, with reference to their expected costs and proceeds from sales. This argument undoubtedly provides a first step towards the dismissal of the neoclassical theory of value that subordinates the determination of quantities (including employment) and prices to the interplay of supply and demand on markets (see Gnos, 2002).

Let us now refer to the financing of factor costs. According to both Keynes and Robinson, the payment of factor costs creates the money income that will be spent in the goods market—directly in the case of consumption goods, and indirectly, that is, after savings have been borrowed by investors (from a variety of sources), in the case of capital goods. This hard core of the monetary circuit theory confirms the originality of both Keynes’s and Robinson’s theory of employment and output determination relative to the neoclassical theory of value. As soon as factor costs are paid, the amount of money income that is going to be spent in the goods markets is determined. It is true, however, that prices in goods markets depend on the interplay of supply and demand. But here supply and demand are subject to what we may call a macroeconomic constraint: the output and the corresponding money income are predetermined with regard to market processes. What falls to the forces of supply and demand, when they fix prices and the quantities of goods currently sold in the markets, is not the determination of the aggregate level of output, but only its distribution between wages and profits:

\[ \text{if the sales value of commodities were not greater than their wages cost, no} \]

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2 ‘To begin with, they do not know what their incomes are going to be, especially if they arise out of profit’ (Keynes, 1937b, p. 216).
3 As Rotheim (1998, p. 68) puts it ‘the language of markets is theoretically invalid at the macroeconomic level’.
4 For an assessment of the theory of distribution underpinning the principle of effective demand, see Gnos (1998).
one except the workers engaged in producing them could consume anything at all. The gap between sales value and wages costs prevents these workers from buying the whole of their own output and obliges them to share it with other consumers. (Robinson, 1956, p. 44)

On several occasions, Robinson acknowledges that The Accumulation of Capital presents a ‘simplified model’, which abstracts from many of the determinants of supply and demand, such as the average level of income of people, the distribution of the whole income among social classes and relative prices (Robinson, 1956, p. 351–356). From this, we could infer that Robinson’s dismissal of the problem of relative prices and the neoclassical theory of value is just a matter for simplification. But this would be a serious misinterpretation. Robinson dismisses the neoclassical theory of relative prices insofar as the latter aims at explaining the determination of the community’s output and income through the adjustment of supplies and demands in markets. A monetary economy of production, as analyzed by both Keynes and Robinson, cannot be equated with the exchange economy depicted by neoclassical writers. Recall that Robinson (1956, p. 26) considered it ‘misleading to apply conclusions drawn from such an imaginary case to the capitalist economy’. The requirements of production, notably concerning the financing of its costs and the repayment of the latter to firms, dictate another view that has much in common with the theory of the monetary circuit.

4. Conclusions

Aiming at extending ‘Keynes’s short-period analysis to long-run development’, Robinson could not fail to adopt his framework, in which money, credit and production are central. We have seen that Robinson endorsed both a theory of endogenous money and views corresponding closely to the theory of the monetary circuit.

How, then, are we to explain the widely held view that Robinson was not much interested in money and the search for a monetary theory of production? The fate of Robinson’s novel approach to accumulation may be explained by the fate of Keynes’s own monetary theory of production, which remains poorly understood despite the struggles of Post-Keynesians and circuitists. But then, Keynes himself anticipated such difficulties in his preface to The General Theory.

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