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Credit, money and economic growth: two volumes in honour of Lavoie and Seccareccia

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Abstract: This review article provides a brief outline of the content of two recent volumes edited by Rochon and Bougrine in honour of Lavoie and Seccareccia. Observations are then advanced on two points raised in the two volumes, namely the effect of the monetary policies on income distribution and the implications of the zero lower bound on the monetary policy. Finally, some contributions focusing on secular stagnation are commented on.

***Keywords*:** Credit, money, monetary policy and income distribution, effective demand and economic growth, secular stagnation.

***JEL classification*:** E12. E4, E5

INTRODUCTION

Two volumes edited by Bougrine and Rochon that have been published by Edward Elgar provide an overview of the issues tackled by Lavoie and Seccareccia in a huge number of articles and books written in the last four decades.[1] Each volume consists of 17 chapters written by distinguished economists who came to know Lavoie and Seccareccia as students or colleagues.[2] The first volume concentrates mainly on issues concerning credit, money and crisis,[3] whereas the second volume focuses on growth theory and macroeconomic stabilization policies.[4] Of course, the arguments developed in the two volumes overlap. For the sake of simplicity, they can be classified as: 1) the nature of money and its endogeneity; 2) the flaws in the notion of a "real" natural rate of interest determined by productivity and thrift; 3) the interest rate as an exogeneous or administered variable and its influence on income distribution; 4) the effectiveness of monetary and fiscal policies; 5) growth and effective demand; 6) the interpretation of secular stagnation. In the spirit of Lavoie's and Seccareccia's works, both critical and reconstructive perspectives are advanced on these themes. Moreover,

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as clarified in Rochon's, Bougrine's and Guttman's overviews of Lavoie's and Seccareccia's contributions to economic theory, these themes are strictly interconnected. Therefore, as stressed by Rochon and Bougrine (2020), a theory based on money endogeneity is insufficient to break away from mainstream economics: in order to avoid having "old wine in a new bottle" (Lavoie 2004: p. 16), one has also to reject the Wicksellian notion of a natural interest rate.

In this review article I will provide first a brief outline of the content of the two volumes in honour of Lavoie and Seccareccia. I will then advance some observations on two points raised in the two volumes, namely the effect of monetary policies on income distribution and the implications of the zero lower bound for the monetary policy. Finally, I will comment on some contributions focusing on secular stagnation.

CREDIT, MONEY AND CRISES

Lavoie and Seccareccia made prominent contributions to money endogeneity and on bridging the circuit and post-Keynesian schools (see, for instance, Lavoie 1984; Parguez and Seccareccia 2000). They clarified that money is created ex nihilo and is endogeneous on two levels, namely, the relationship between banks and borrowers and the one between banks and the central bank. On the first level, the act of lending is a validation of the private sector's production plans; on the second level, the central bank provides the bank system with the liquidity that it needs. As stressed by Guttman (*Understanding credit-money: Lavoie and Seccareccia's contribution to monetary theory*, in Bougrine and Rochon 2020a), even in the 19th century when the gold standard was operating, the flexibilization of the money supply provided by the fiat money (currency) and the privated bank money in the form of checking accounts already allowed the banking system to respond to a great extent to the funding needs of the government and the private sector. In a fiat money economy, this validation of the demand for credit is usually guaranteed as long as borrowers are considered creditworthy.

As regards the second level, the horizontalist argument that central bank accommodates the liquidity needs of the bank system in order not to lose the control of the interest rates (Monvoisin and Ponsot, *The macroeconomic dimension of money*, in Bougrine and Rochon 2020a) does not preclude the presence of credit constraints and other limitations in the bank-lending pipeline, pushing up the interest rates at least in the short run. In the two volumes in honour of Lavoie and Seccareccia, the suggestion

is made that in this respect, the behaviour of banks seeking to balance their liquidity preference and their profit motive shaping their credit extension has to be modelled in more detail (see for example, Lavoie and Seccareccia 2016). In fact, it may turn out to be a possible source of crises if banks do not perform their duty due to a pessimistic outlook on expected demand in the near future. Moreover, as stressed by Heron (*Endogeneous money, liquidity and confidence*, in Bougrine and Rochon 2020a), the liquidity preference of banks may influence the spread between the short term policy interest rate set by the central bank and the long term interest rate, even if the monetary authorities have the instruments to influence on average the term structure of the interest rates.[5]

The idea that money is created ex nihilo by satisfying the demand for credit is at the basis of the monetary circuit school. Since market participants are subject to a monetary constraint inasmuch as they have to sell first (earn income) before being able to buy (spend it), credit covers these inherent cash-flow gaps between buying and selling by allowing borrowers access to spendable income before they have earned it. The contribution by Bellofiore (*Two easy pieces,* in Bougrine and Rochon 2020a) specifically deals with the closure of the monetary circuit considering the problem of profit and interest monetization (see also Leclaire, *Seccareccia and Lavoie on financial crisis. Linking the real and financial sectors of the economy: the major contribution of post-Keynesians,* in Bougrine and Rochon 2020a). Here Lavoie's perspective that the part of profits of the investment sector will be realized in kind is considered, as well as the criticism of Graziani's perspective put forward by Seccareccia and Parguez's idea that the monetary realization of profits occurs by means of a second round of financing or anticipation in initial finance.[6] Bellofiore also reconstructs Graziani's analysis of Marx's monetary circuit showing that the recovering at the closure of the circuit of the currency injected at its opening is compatible with the Marx's sequence M-C-M'.

With money endogeneity the myth of the scarcity of public funds is debunked. In a regime of credit-money, currency responds in an elastic fashion to the funding needs of private or public economic actors so that governments can run budget deficits and consumers can spend beyond current income. In their contribution, Parguez and Thabet (*Money, state and growth of welfare: fighting the dangerous transformation of capitalism,* in Bougrine and Rochon 2020a) derive from this that with full sovereignity of its currency the State has the power to create at will the money needed for achieving its goals (full employment, abolition of scarcity,

enlightening future despite fundamental uncertainty). In this respect, Lavoie has always recommended not consolidating the Treasury and the Central Bank and looking at the actual institutional setting of the monetary policy, while pointing out at the same time that fiscal and monetary policies can help to ensure full employment and a redistribution of income in favour of workers.[7] The relevance of this institutional setting is well described by Arestis and Sawyer (*The problematic nature of the macroeconomic policies of the economic and monetary union,* in Bougrine and Rochon 2020b) when dealing with fiscal and monetary policies in the euro area. The latter also stress the need for a European federal budget to promote full employment and national budgets which are not constrained by some arbitrary limit such as balanced budgets. Moreover, they advocate a reform of the European Central Bank whose goal should shift from price stability to financial stability and support of national fiscal policies. As suggested by Harcourt, Kriesler and Halevy (*Central-bank independence revisited,* in Bougrine and Rochon 2020b), this means overcoming Central Bank independence stemming from the ideas of money neutrality and the existence of a natural rate of unemployment. It has to be overcome because only government and its ministers are answerable to the people for the implementation and performance of policies and because fiscal and monetary policies must be combined for growth and equitable income distribution.

This perspective is strictly linked to Lavoie's and Seccareccia's rejection of the notion of the natural rate of interest and their idea that full employment may be achieved at any rate of interest. According to them, the rate of interest is not the result of forces of supply and demand. On the contrary, it is set and administered by the central bank. Moreover, it is more an income distribution variable than a tool for counter-cyclical monetary policies. Several papers in the two volumes edited by Bougrine and Rochon deal with these issues, e.g., the one by Smithin and Kam (*Hicks on Hayek, Keynes and Wicksell*, in Bougrine and Rochon 2020b) that re-examines the debate between Keynes and Hayek on the validity of any policy based on a 'natural rate of interest.' These papers reject the loanable-funds doctrine[8] and question the effectiveness of monetary policy pursuing the Taylor-rule formula, which is ultimately founded on that doctrine and a *definite* sensitivity of aggregate demand to the interest rate. In particular, Lima, Setterfield and da Silveira's paper (*The great deception: the science of monetary policy and the Great Moderation revisited,* in Bougrine and Rochon 2020b) shows that the model used by the central bank to guide monetary policy is mispecified insofar as it overlooks the long run relationship between

output and inflation. Finally, other papers show that the response to the 2007-2008 global financial crisis by the monetary authorities had distributional effects also because the main beneficiaries of quantitative easing were large financial firms and big corporatios in key business sectors such as energy, construction and autos (Epstein and Montecino, *The political economy of quantitative easing and the Fed: who gained, who lost and why did it end?,* in Bougrine and Rochon 2020b).

ECONOMIC GROWTH AND EFFECTIVE DEMAND

In the second volume entitled *Economic Growth and Macroeconomic Stabilization Policies in post-Keynesians Economics* in particular, the relationships between aggregate demand, distribution and growth are analysed. Dutt's paper (*Autonomous demand growth, distribution, and fiscal and monetary policy in the short and long runs*, in Bougrine and Rochon 2020b) provides a simple model of growth and distribution to examine the effects of fiscal and monetary policies. Emphasis is placed on the role of aggregate demand in affecting growth and of class struggle in affecting income distribution when assuming a tendency to a long period position in which capactity utilization is at its planned or normal exogeneously given level. The paper by Fujii-Gambero, Garcia-Ramos and Lopez-Gallardo (*Trade and growth in the middle-income economies: Mexico, Korea and China*, in Bougrine and Rochon 2020b) analyses the importance of foreign trade in economic growth by looking at specific historical cases. Cesaratto (*Garegnani, Ackley and the years of high theory at* Svimez, in Bougrine and Rochon 2020b) brings our attention to the contribution of Pierangelo Garegnani, who, together with Gardner Ackley, argued in favour of the relevance of Keynes's theory for economies at an intermediate stage of development and of aggregate demand in driving economic growth.[9]

Other papers focus on the effects of a change in income distribution on economic growth by looking at whether a wage-led or profit-led regime prevails. Hein and Prant (*Functional distribution and wage inequality in recent Kaleckian growth models*, in Bougrine and Rochon 2020b) conclude that reducing wage dispersion would be a reliable and sustainable way of boosting aggregate demand and growth, as well as stimulating productivity growth. Blecker (*Long-term shifts in demand and distribution in neo-Kaleckian and neo-Goodwinian models*, in Bougrine and Rochon 2020b) discusses the paradox that an increased profit share has failed to bring about improved macro performance with medium-term horizons in economies which have profit-led demand in the short run. According to

Blecker, this can be explained by the finding of the neo-Goodwinian literature that the distributive relationship slopes upward in the utilization-wage share space (profit-squeeze in distribution) while the aggregate demand relationship slopes downward. Given these relationships, lower utilization/growth rates and lower wage share will be primarily driven by downward shifts in the aggregate demand relationship. Therefore, it is chronically depressed aggregate demand which prevents workers from winning wage gains in line with their productivity growth rather than the falling wage share being an exogeneous cause of depressed demand. This reconciles the empirical findings of profit-led demand and neo-Goodwinian *cyclical* dynamics with the observed medium-term declines in both macro performance and wage shares in various countries, provided that there is a profits squeeze in distribution and the shifts in the aggregate demand relationship dominate the shifts in the distributive relationship.

However, both Cesaratto's and Dutt's contributions criticize the wage-led growth purported by the neo-Kaleckian literature. According to the Sraffian supermultiplier, variations in real wages have a *level effect* on income via the variation of the marginal propensity to consume, but not a growth impact other than in the transition from a normal growth path to a new one, because the latter is shaped only by the growth rate of final demand. This questions the ability of the normal growth path to catch the actual pace of capital accumulation.[10] Nevertheless, following the supermultiplier approach, capacity savings adjust to investment over the long term through variations in the scale of capacity and investment is explained by the final demand plus an autonomous component determined by technical progress, where the final demand is the one whose purpose is not the further production of goods within the economy such as autonomous (credit-driven) consumption, public consumption and exports. Moreover, capitalism needs an adequate growth of autonomous demand because the increase in productive capacity is not spontaneously accompanied by an adequate corresponding increment in autonomous aggregate demand.

MONETARY POLICY AND INCOME DISTRIBUTION

In several works, Lavoie and Seccareccia focused on the conflict between rentiers and workers and therefore on the interest rate as a distributive variable. In their view, changes in the interest rate are transmitted to the real economy not only through the cost of borrowing and lending but also through income. This is neglected by Blecker according to whom "the post-Keynesian literature often emphasizes the distributional impact of monetary

policy, but mainly in relation to the distribution of capital income between rentiers and firms (Bougrine and Rochon 2020b, p. 164)." It is also neglected in Dutt's model where "monetary expansion has no effect on income distribution, unless there is a fall in the profit share due to the increase in capacity utilization and employment" (Bougrine and Rochon 2020b, p. 29). No room is given in this model to the idea of a monetary determination of distribution as suggested by Sraffa (1960) and developed for example by Garegnani (1979) and Pivetti (1991).

The role of rentiers as emphasised by Lavoie and Seccareccia is analysed by Caldentey and Vernengo (*International rentiers, finance and income distribution: a Latin American and post-Keynesian perspective*, in Bougrine and Rochon 2020a) according to whom financialization and the international rentier interests have led to higher levels of inequality and lower economic growth in Latin America. It is also present in the contribution by Costantini (*Household debt and the rentier share of income*, in Bougrine and Rochon 2020b) on the impact of interest rate deregulation and austerity policy on household indebtedness.[11]

As regards Caldentey and Vernengo, they state that according to Lavoie and Seccareccia "monetary policy decisions and conventions were at the very heart of interest rate determination" for Keynes (Lavoie and Seccareccia 2016, p. 208). They also observe that, if the emphasis of classical economists is on the distributive conflicts between workers and capitalists, post-Keynesians, following Keynes, put greater emphasis on the role of rentiers and the conflicts between creditors and debtors, as Marx did when he highlighted the conflict between the investors (rentiers) and the business (industrial capitalist, producers). In this respect, the gold standard and sound finance policy gave the upper hand to the rentiers over the capitalist class, as did deflationary policies putting an increasing burden on productive classes. Something different has worked, however, with the expansion of global financial assets since 1980 driven by global banks and the emergence of large complex financial institutions.[12] With this expansion, there has been a process of financial concentration so that in the United States the first four big banks held the 50 percent of the total banking system assets. Moreover, still in the United States, the ROE of the banking system averaged 5.5 percent between 1984 to 1990 and 12.7 percent between 1991-2007. With the financial crisis, it fell to 7.7, but in 2018 it returned to 12 per cent. This occurred thanks to a strategy expanding the trading in assets, including foreign exchange, equities and commodities whose prices increased. Looking specifically at Latin America, Caldentey and

Vernengo argue that the financialization of commodity markets "plays an insidious role. While higher commodity prices, which, in part, can be ascribed to speculation in these markets, were instrumental in lifting the external constraint, they created the conditions, with the fluctuation and instability that characterises financial markets, for greater financial fragility. In addition, even though in the last commodity boom, the pink tide and the so-called natural resource nationalism created conditions for income redistribution, the higher commodity prices also led to higher profit shares in many countries in the region, worsening income inequality in an already very unequal region (Bougrine and Rochon 2020a, p. 225)."

As regards Constantini's paper, she provides interesting insights into the transformations in credit markets in the US and the cost of borrowing for different income groups. The low short interest rates in the last decades did not imply low interest rates in different fields, credit cards, colleges etc, and the interest rates were always higher for lower income sectors of wage earners. Constantini also focuses on the direct effect from interest payments being an actual transfer of income away from the non-financial to the financial sector. In particular, she focuses on Pasinetti's idea shared by Lavoie and Seccareccia that everybody who is involved in the credit market should obtain at each time a constant amount of purchasing power in terms of labour, so that a fair *nominal* interest rate should be the one set equal to the rate of inflation plus the rate of growth of labour productivity. If real wages and productivity grow at the same rate, the fair *real* interest rate should thus be equal to productivity growth. This would guarantee that the liquidity advanced at time t commands the same amount of labour at time $t+1$. Any deviation from this fair rate would imply a change in the distribution towards the industrial or the financial sector according to the sign of the deviation. Since, as Constantini observes, some "strong assumptions are needed in order to obtain the index" (Bougrine and Rochon 2020b, p. 80), namely a constant mark-up[13] and the aggregation of sector commodities and prices, including interest rates, she calculates a weighted interest rate to derive Pasinetti's index, namely the difference between the real interest rate and productivity growth. She obtains the result that from 2000 the index is lower than in the period 1980-2000 (being before the 1980 negative) but it is still around 4-5 per cent ensuring an income redistribution in favour of the financial sector.

The meaning of this index, however, is not clear (see Levrero 2019). Pasinetti's 'labour principle' of income distribution starts from a natural system where each commodity is produced only by labour, there is full

employment, and savings or dissavings cannot occur at the macroeconomic level. Therefore, the "fairness" of Lavoie's and Seccareccia's proposal to set the real interest rate equal to the rate of growth of labour productivity can be disputed when this Pasinetti's world where only workers lend to other workers is abandoned and we consider the reality of capitalism where the "labour principle" does not hold, loans are provided by banks financed by the central bank and savings mainly stem from the level of activity and appropriation of the surplus product by the owners of the means of production. In this case, if a 'park it' approach is to be followed, it ought to minimize the earnings of accumulated financial capital. Moreover, if central banks have the power to set the real long term rate of interest and this affects the rate of profits as Lavoie and Seccareccia themselves sometime suggest (see Lavoie and Seccareccia 2004), an increase in the real interest rate due to an increase in the rate of growth of productivity would imply a fall in the share of wages in national income.

NEGATIVE INTEREST RATES AND THE EFFECTIVENESS OF MONETARY POLICY

A shared idea along Keynesian lines is that lower interest rates cannot always increase aggregate demand and that negative rates may cause financial fragility. Palley (*Negative interest rate policy (NIRP) and the fallacy of the natural rate of interest: why NIRP may worsen Keynesian unemployment*, in Bougrine and Rochon 2020b) starts from these Keynesian ideas to criticize the New-Consensus justification for NIRP, namely that deleveraging and paying down debt led to a strong increase in the full employment supply for savings that necessitates a fall in the *real* interest rate which was blocked off, however, by the zero lower bound (ZLB) for nominal interest rates and therefore be achievable only by driving up inflation expectations or setting a negative *nominal* interest rate (by putting the lending rate of the Central Bank below zero or charging commercial banks for their deposits with the Central Bank). According to Palley, new-Keynesians forget in this respect Keynes's message that interest rates may not solve demand shortage, that investment and savings adjust through changes in output, and that aggregate demand may be insensitive to the rate of interest. Moreover, they confuse the ZLB with a liquidity trap where expansionary open-market operations cannot affect asset prices and interest rates because quantitative easing had effects at the ZLB on asset prices.

The problem of the insensitivity of aggregate demand to the interest rate is captured in neo-Keynesian models by an IS vertical curve together

with a LM horizontal curve. However, in this way, investment demand (interest-rate insensitivity of the vertical IS) and money demand (interest rate rigidity of the horizontal LM) are separated contrary to Keynes (1936) who had a unified theory in which investment demand and money demand interacted and were two sides of a common argument, namely the 'investment saturation hypothesis.' In Chapter 17 of Keynes's *General Theory*, real capital accumulation (that is investment) competes with non-reproduced assets (which include money, real estates, precious metals, work of art, patents and copyright) for a place in wealth portfolios, with marginal allocations depending on marginal returns. This competition links investment demand, money demand and demand for non-reproducible assets. So, no further increase in the rate of investment is possible "if there exist some asset, having zero (or relativity small) elasticities of production and substitution, whose rate of interest declines more slowly as output increases, than the marginal efficiencies of capital-assets measured in terms of it" (Keynes 1936, p. 236). This would explain why negative nominal interest rates may not alleviate the problem of aggregate demand shortage. Once the marginal efficiency of investment hits zero, firms will prefer to use additional finance to acquire NRAs whose marginal return is still positive. Consequently the ZLB floor is not the problem. Instead, the problem is the existence of NRAs with higher returns than investment. Even if the central bank were to make the nominal cost of finance negative (no ZLB), firms would still refuse to invest more and prefer to acquire NRAs' instead.

In this reasoning, however, Palley maintains the more traditional aspect of Keynes's analysis, namely the idea that each asset has its own pattern of diminishing marginal returns and that the marginal efficiency of investment will eventually become negative owing to diminishing marginal efficiency of investment, whereas the marginal return to non-produced store of value is diminishing but usually always strictly positive.[14] He therefore seems to share the new-Keynesian belief that investment stagnation stems from capital profitability becoming too low or even negative rather than from a shortage of effective demand. Nevertheless, his portfolio's analysis may still help to explain the bidding up of asset prices. Monetary policy lowering the money market risk-free interest rate makes extra loan finance with very low loan rates possible which is directed to share buybacks and increased holdings of NRAs.

THE SECULAR STAGNATION

As shown by Stanford (*Dimensions and implications of the slowdown*

in OECD business investment, Bougrine and Rochon 2020b), a low pace of private business-capital accumulation is experienced in most OECD economies since the advent of neoliberal policy in the 1980s without any lack of profitability: the owners of business consume their high profits or hoard them or speculate with them rather than investing them productively. Also the phase of low interest rates has been unable to revive growth because there is little reason for firms to expand productive capacity in the face of persistent aggregate demand shortage.

In his contribution, Storm (*Secular stagnation, loanable funds and demography: why the zero lower bound is not the problem*, in Bougrine and Rochon 2020b) provides a critique of the the New Consensus interpretation of the secular stagnation in capital accumulation. According to this interpretation, it is determined by an excess of savings over investment due to higher retirement savings stemming from declining population growth and an ageing labour force, higher income inequality and/or an inflow of precautionary Asian savings. All these savings end up as deposits, or loanable funds, in commercial banks. In earlier times, banks would successfully channel these funds into productive firm investment – by lowering the nominal interest rate and thus inducing additional demand for investment loans. However, in recent decades, the glut in the savings supply would have been so large that banks would not have been able to get rid of all the loanable funds if they offered firms loans with interest rates set to zero. Therefore, a shortage in aggregate demand occurs in the short run and long-term stagnation when the imbalance persists.

Storm points out that in this New Consensus doctrine there is a wrong conceptualization of banks, a wrong view of the interest rate as a market-clearing price, and a wrong idea of two schedules of savings S and investment I each one independent of the other. In fact, both S and I are determined by changes in income and income distribution, and S and I are equal through changes in income and not of the interest rate. Moreover, credit money comes into existence as a result of bank lending and is extinguished through the repayment of bank loans: at any time, the volume of bank lending is limited only by the availability of creditworthy borrowers. Therefore, if the interest rate is at the zero lower bound, it is not as the result of supply and demand forces as stated by Summers,[15] but due to a deliberate policy decision by the monetary authorities in an attempt to revive sluggish demand. Storm thus argues that the "saving glut" is not the cause of the secular stagnation. Rather, it is the consequence of an aggregate demand shortage which has its roots in the permanent suppression of wage

growth relative to labour productivity, the rising income and wealth inequalities as well as the financialization of corporations and the economy as a whole.[16] This leads to a lack of investment in real economic activity, R&D and innovations. On the other hand, the low interest rates are important in this context because they have dramatically lowered the opportunity cost of holding cash – thus encouraging (financial) firms, the rentiers and the super-rich to hold onto their liquidity and make (quick and relatively safe and high) returns in financial markets and exotic financial instruments (Lavoie and Seccareccia, 2016). Two decades of financial deregulation have created "a rentiers' delight, a capitalism without compulsions on financial investors, banks and the property-owning class."

To explain why firms invest so little while they generally continue to make very large profits Cordonnier (*Secular stagnation and the curse of contemporary Eldorados: whatever happened to broad-impact products?*, in Bougrine and Rochon 2020a) refers to the malformation of contemporary "Eldorados", i.e. the disappointing nature of the new frontiers offered to the inducement to invest. It is an extension of analyses that French regulation theory produced in the 1970s and 1980s regarding the coordination of the consumption norm and the production norm. Cordonnier argues that in contemporary capitalism there is a lack of goods that have a strong effect on capital accumulation such as the automobile and household appliances had in the post-war period.[17] It is this lack rather than the slowing down of productivity that explains secular stagnation because accumulation is driven by anticipation of growth opportunities which are sufficiently well identified and sizable enough to encourage a substantial fraction of actors to invest in sectors producing broad-impact goods. These are cost produced goods that are paid individually, can be replicated, mobilize enough indirect labour for the investment needed for their production, have connection to the established social imagination, are inserted in the functional chain of existing goods and may be the object of conspicuous consumption. In this respect, the new information and communication technologies still have a fairly small share of total economic activity and moreover, the ITC firms mostly revolutionize their own production and lower the costs of capital goods, which runs counter to the favourable effects on the expansion of total demand that had been hoped for. As regards energy and ecological transition, to a great extent they are collective goods and need of popular consent for socialized spending. The same can be said for education, better funding of the legal system and improvements in urban planning. This is why, according to Cordonnier, a "society of profits without prosperity" may

still prevail over the next few years - unless, we can add, a socialization of a share of investment does not occur.

Notes

1. They wrote close to 300 journal and book articles and several authored and edited books. A bibliography of their works is provided at the end of each volume edited by Rochon and Bougrine.
2. The scholars involved in the two volumes are (in order of appearance) Rochon, Bougrine, Guttman, Parguez, Thabet, Bellofiore, Fontana, Monvoisin, Ponsont, Gnos, Rossi, Le Heron, Ferguson, Jorgensen, Chen, Caldentey, Vernengo, Correa, Marshall, Cordonnier, Leclaire, Petit, Toporowski, Dutt, Hein, Prante, Fulli-Gambero, Garcia-Ramos, Lopez-Gallardo, Costantini, Storm, Smithin, Kam, Cesaratto, Dufour, Blecker, Arestis, Sawyer, Montecino, Kriesler, Halevi, King, Palley, Stanford, Tadeu Lima, Setterfield and de Silveira.
3. H. Bougrine and L.P. Rochon (eds), *Credit, Money and Crises in Post-Keynesian Economics*, Cheltenham: Edward Elgar, 2020, ISBN 9781786439543, 366 pages.
4. H. Bougrine and L.P. Rochon (eds), *Economic Growth and Macroeconomic Stabilization Policies in Post-Keynesian Economics*, Cheltenham: Edward Elgar, 2020, ISBN 9781786439567, 342 pages.
5. See in this respect Deleidi and Levrero (2021). As suggested by Keynes, the interest rate is a highly conventional variable fixed by the monetary authority which can anch or the long-term expectations of speculators.
6. As known, the problem arises because firms recover from the circuit just what they obtain from the consumption market and from selling securities to households and at best this can be equal to the finance initially injected. Therefore, other sources are needed to pay money interests to banks. They can be external to the domestic private sector - as in the case of a surplus in the balance of payments or a public deficit – or internal to the private sector. In this case, a first possibility is that there is some monetary capital in the balance sheets of firms and that not all loans from banks are repaid at any given point in time. Another possibility is that firms get a second round of financing from banks at the end of the circuit and immediately give it back to banks so that interests are paid. Since interests are directly or indirectly spent by banks, firms have once again the amount of money needed to reimburse the second round of financing at disposal. As stated by J. Robinson in Accumulation of Capital, banks pay wages to their employees who spend them on the goods market, which are expenses that are receipts of the firm sector. Moreover, banks spend the remaining part of the excess of the interest received from loans over the interest paid to households by buying investment goods (directly, or by buying equities issued by firms). Eventually, this is nothing but a payments in kind of interests from firms as a whole to banks, with the two capitalist classes sharing the net product.

7. However, according to Bougrine (*The theory of money, interest and unemployment*, in Bougrine and Rochon 2020a), most post-Keynesians have a liberal attitude but are quite conservative on the most important policy issues: they aim to tame capitalism rather than eliminate social inequalities. This latter goal would require public corporations in all sectors of the economy through which the State acts as an employer of first resort, institutional changes supporting workers' owned and managed enterprises and a network of public banks.
8. It is worth noting in this respect that in Ricardo the acceptance of Say's law stemmed from identification of an act of savings with an act of investment rather than from "an automatically self-balancing economy around the presumed (ex-ante) equality between saving and investment as maintained at the full-employment level by appropriate adjustments in the interest rates" (Guttman, p. 23, in Bougrine and Rochon 2020a). This is why the classical theory is open to incorporating the principle of effective demand in order to determine normal outputs unlike the neoclassical theory.
9. With an inappropriate expression Garegnani is labelled by Rochon and Bougrine as "a lesser known Italian economist." (Bougrine and Rochon, 2020c, p. 4). On the contribution of Pierangelo Garegnani to economic theory, see Levrero (2014).
10. As admitted by Dutt "over the adjustment period, capacity utilization and growth of capital stock increase, the average rates of capacity utilization and rates of growth during a finite period are higher than before the change in the wage share. In the average sense, but not in the long-run equilibrium sense, an increase in the wage share increases capacity utilization and growth (Bougrine and Rochon 2020b, p. 25)."
11. The paper by Ferguson, Jorgenson and Chen (*High finance, political money and the US Congress: a quantitative assessment of the campaign to roll back Dodd-Frank*, in Bougrine and Rochon 2020a) also stresses the ability of financial sector to influence the electoral campaign in the United States and through this, the legislation votes in its favour as in the case of voting on measures to weaken the Dodd-Frank financial reform bill.
12. As known, the ratio of the value of global financial assets to world gross domestic product passed from 1 in 1980 to 14 in 2007, to 12 in 2012, and again to 14 in 2016.
13. Constantini does not consider that Lavoie and Seccareccia have recently argued that real wages do not grow in line with labour productivity because the share of profits in national income ought to change when the capital-output ratio changes and the rate of profits is "constrained" by the Cambridge equation. Therefore, they modified their original proposal by referring the "fair" rate of interest to a measure of the growth rate of real wages. So, taking inflation into account, the nominal fair rate of interest ought to be equal to the growth rate of the nominal wage rate. In terms of the relations between borrowers and lenders, nothing would change, however, because the lenders

would still receive an amount of money whose purchasing power in labour-time had remained constant.

14. As regards money, it has a diminishing own return determined by liquidity services plus the interest rate on money equal to Central Bank money market rate minus a fixed intermediation cost. If this turns out to be negative, the marginal total return on money can be negative.
15. Even if Summers (2014: 71) admits that "lack of demand creates its own lack of supply, "he nevertheless states that "changes in the structure of the economy have led to a significant shift in the natural balance between savings and investment, causing a decline in the equilibrium or normal real rate of interest that is associated with full employment, "which is the traditional interpretation of the secular stagnation.
16. It is worth noting in this respect that global saving rates of private households decline dramatically during 1985-2014 losing the equivalent of 5 percentage points of GDP (from 13 to 8 percent), which rules out the idea of excess savings due to demographic factors. Aggregate propensity to save remains the same because business savings gained 5 points over the same period, from 8 to 13 percent of GDP.
17. He also criticises Summer's explanation of low investment based on 1) changes in production methods, especially with ITC companies (Apple, Google, WhatsApp), with high revenues and very little productive capital and labour; 2) demographic slowdown and the consequent weakness of the market prospects for consumer goods or capital goods that will need to produce in the future, such as housing; 3) lower prices of capital equipment relative to all goods and services produced. These elements may have had a role (for instance, by reducing the optimal capital-output ratio) but overcome 1) the raising of the financial hurdle rate and the increase in the concentration of firm; 2) the decline of productivity gains decreasing any urgency felt by firms to increase their productive capital; and 3) the influence of aggregate demand on the amount of investment.

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