Introduction

Marc Lavoie

Introduction

I am grateful to Louis-Philippe Rochon for having insisted that I gather together many of my writings on monetary economics, and for Edward Elgar for having accepted to go ahead with such a book. In fact, Louis-Philippe did all the work, gathering the authorizations and the clean copies of the chosen articles. I hope, as he claimed, that a number of young scholars will find it useful to have all these articles and chapters collected into a single volume.

I have limited myself to articles devoid of algebra or of tedious lists of equations. This means that I have not included articles that deal with monetary issues but that contain macroeconomic models with equations. It also means that I have not incorporated any of the articles dealing with various monetary developments of the stock-flow consistent (SFC) approach as can be found in the book of Godley and Lavoie (2007). The only exception is a 2009 paper making use of balance sheets inspired by the SFC approach. I have also set aside articles devoted to the analysis of endogenous money within the context of open economies. The topic is briefly discussed, however, as a minor aside in some of the selected articles.

In what follows, I will only make off-the-cuff remarks about how these works came about or what their contents are. To help the reader, I have divided the 20 papers into six sections, which only partially follow a chronological order.

Earlier and easier writings

The first part is devoted to my earlier writings. The 1984 *Journal of Economic Issues* article (Chapter 1, this volume) was a modified version and translation of the second paper that I ever published, which was in 1982, in the French scholarly journal from Quebec called *L'Actualité économique* (Lavoie 1982). The article gave rise to a comment by Shirley Gedeon, a post-Keynesian colleague from the University of Vermont, which forced me to clarify some of the issues, notably how credit restrictions could be conceived in a world of endogenous money. Whereas the standard perspective was that the supply of money or of credit would be upward sloping, my 1985 response (Chapter 2, this volume) was that in bad or uncertain times banks would be reluctant to make loans due to a lack of proper collateral: 'Those conditions are constraints on the supply of credit. In my view, they are shift parameters. They are not determinants of the slope of the supply curve.' A few years later, I referred to an *effective* demand curve for credit that takes into consideration collateral requirements and risk (Lavoie 1992, pp. 177–8). In a later article, I also called it the *solvent* demand for credit. Then, Martin Wolfson (1996), in an article that I always highly recommend to students, succeeded in introducing credit restrictions through asymmetric expectations (rather than asymmetric information), while still assuming a horizontal supply curve of credit. He provided a highly useful figure, by distinguishing between the *notional* demand and the *effective* demand curves for credit. The former measured the desires of borrowers while the latter, being shifted to the

inside, reflected these desires as toned down by the worries of the lenders, later leading Rochon (1999, p.283) and Wolfson (2012) to call it the *creditworthy* demand curve.

In 1985 I also published a chapter in the book edited by Marc Jarsulic (Chapter 3, this volume), who had been made aware of my work by Alfred Eichner and Stephen Rousseas. The main objective of that paper was to show the similarities and differences between British and American post-Keynesian authors on one hand and French dissidents on the other – heterodox ones (the circuitists) and orthodox ones (the *overdraft* economists). Readers may note that in both of these 1984 and 1985 papers, there is a footnote where I say that I am thankful to ‘my teammate Eli Sunkunda’. These two papers were finalized while I was participating to the training camps of the Canadian national fencing team: Sukunda, besides being a member of the saber team, was a part-time English teacher at the University of Windsor and helped me out with the English in-between training sessions!

I decided to add to this first part the chapter that I published in 2003 in the book edited by Rochon (him again!) and Sergio Rossi (Chapter 4, this volume). As the title says, this is a ‘Primer on endogenous credit-money’, or in other words, a child’s guide to post-Keynesian monetary economics. I believe it is fitting to have it there, so that readers not fully familiarized with post-Keynesian monetary theory get to benefit from a simple introduction to it, starting from its basics. A number of students have told me that this chapter was highly helpful. Besides the basics of money creation, the chapter also deals in a simple manner with concepts such as liquidity, solvency, overdraft and asset-based economies, liability management, securitization, repos, and the impact of government expenditure on bank reserves.

Inspiring authors

The second part is made up of three papers mainly devoted to authors whose work on monetary theory had a large influence on my own thinking: Nicholas Kaldor, Jacques Le Bourva and Alfred Eichner. The first of these papers carries the title ‘Change, continuity and originality in Kaldor’s monetary theory’ (Chapter 5, this volume), but in reality it also deals with the views of other Cambridge authors such as Anthony Cramp, Richard Kahn and Joan Robinson (and even John Hicks), as well as those of a number of American authors not normally associated with post-Keynesianism but who dealt with endogenous money. I met Kaldor at his house in Cambridge in the Fall of 1985. Before that meeting, he had kindly offered to write a recommendation letter in case I needed a support of last resort when I was up for tenure at the University of Ottawa in 1984. The paper was presented at the 1987 conference in honour of Kaldor that was held at the New School and at the Levy Economics Institute, a year after he had passed away. I remember claiming, with Tobin himself being present in the audience, that Tobin’s 1970 paper, *Post hoc ergo propter hoc*, was only a ploy to dismiss Friedman’s monetarism but that Tobin had never endorsed the endogenous money hypothesis. My take on the evolution of Kaldor’s views on money endogeneity (that he had moved from a variable velocity argument towards a reversed causation one) was criticized by some colleagues, but I eventually got support from Giancarlo Bertocco (2001). In that same paper, however, I made the mistake of contending that Robinson had taken a *conventional stance* in her chapters on money in her 1956 *Accumulation of Capital*. Rochon was to correct me subsequently in a series of papers.

The second paper of Part II (Chapter 6, this volume) is devoted to a 1992 presentation of the monetary views of Jacques Le Bourva, a French economist from the University of Rennes, in

Little Brittany, who back in 1959 had announced the demise of the quantity theory of money and its exogenous supply of money, while predicting the revival of Wicksell's views based on a pure credit economy and endogenous money. All the main themes of post-Keynesian monetary theory can be found in his two articles of 1959 and 1962, published in French. I met Le Bourva in the spring of 1994, when he was honoured during a one-day conference at his university. I had vaguely asserted in my 1985 chapter for Jarsulic (p.72) that *overdraft* economists believed in the existence of a natural rate of interest, whereas post-Keynesians did not. However it was only when I attended the Le Bourva 1994 conference that I realized how important the acceptance or the rejection of this natural rate of interest was for monetary and macroeconomic policy – an importance also underlined at about the same time by Canadian post-Keynesians John Smithin and Mario Seccareccia. The conference revealed that while Le Bourva's younger colleagues and former students saw the supply of money as being endogenously determined by its demand, they also endorsed the existence of the Wicksellian natural rate of interest. I then realized, as expressed in detail in Lavoie and Baslé (1996, p.288), that propounding a theory based on the endogeneity of money is insufficient to break away from mainstream economics: one also has to reject the existence of a natural rate of interest in a monetized economy. This turned out to be a correct assessment, as exemplified by the New Consensus model which became the workhorse of neoclassical macroeconomics, with its endogenous money supply but with its unique natural rate of interest.

The third article in Part II (Chapter 7, this volume) is devoted to the monetary views of Eichner. Rochon (him once again) had convinced me and my long-time colleague and co-author at the University of Ottawa, Mario Seccareccia, to edit a book on the macroeconomic views of Eichner. I had given a presentation on endogenous money at Rutgers University in 1983, at Eichner's invitation, and he had himself given a presentation at the University of Ottawa. Eichner is mostly known for his microeconomic analysis of large corporations (the megacorp), but we wanted to edit a book devoted to his monetary and macroeconomic works, because we felt that his macroeconomic contributions were unjustly being ignored by younger scholars, and also because, as the title of my paper says, we believed that Eichner was ahead of his time. Actually, the book contains three articles specifically devoted to Eichner's monetary economics: mine, Rochon's and the one by Robert Guttman, who later happened to be my welcoming colleague at the University of Paris 13 for three years, in 2016–2019. I argued in the chapter that Eichner's contributions were of three kinds: first, he was advocating the use of flow-of-funds analysis, something that has been brought back to life in post-Keynesian economics through the stock-flow consistent (SFC) approach of Godley and Lavoie (2007); second, Eichner insisted that it is credit demand, rather than the demand for money, which is the key starting point of a monetary analysis, thus implying that the credit decisions of banks and the creditworthiness of their borrowers play an important role; third, a major contribution of Eichner was his perception of the central bank as an institution pursuing essentially defensive operations. While post-Keynesian economists claim that the central bank tries to accommodate the demand for reserves by commercial banks, the proper explanation of this behaviour was first provided by Eichner in the mid-1980s. Eichner's contribution is the empirical counterpart of the theoretical explanations provided by the neo-chartalists in the late 1990s when they discussed the relationship between government operations and changes in the reserve accounts of banks at the central bank, as he explains that there is no correlation whatsoever between open-market purchases of the Fed and changes in

the reserves of commercial banks. The reason is that the purpose of these open-market operations is to compensate for the effects on reserves of autonomous factors, mostly the transactions between the government and the private sector.

In defense of horizontalism

As many readers no doubt know, there was an intense debate that started in the early 1990s between advocates of horizontalism and those of structuralism. In all four articles of this third part, I attempted to clarify what the horizontalist position truly was, in an attempt to dismiss the kind of strawman that was often presented as horizontalism by some of my post-Keynesian colleagues, thus trying to demonstrate that the horizontalist position was neither radical nor extreme. In his 2017 lecture at the Berlin post-Keynesian summer school of the Research Network Macroeconomics and Macroeconomic Policies (FMM), my friend Tom Palley declared that the structuralist position had been clearly vindicated over the horizontalist position. My perception is instead that the more transparent behaviour of central banks, with their explicit short-term interest targets, and in some cases the total disconnection between overnight rates and open-market operations, has instead upheld the horizontalist claims. I suppose that this controversy will never die, as can be ascertained by new publications on the topic, as some scholars rediscover only part of the literature.

The first paper in Part III (Chapter 8, this volume) was written in 1990–1991, for the conference that was organized in 1990 at the Levy Economics Institute, but the proceedings were only published in 1996. The purpose of this three-day affair was to confront the views of post-Keynesians with those, quite similar, of the French circulationist or circuitist approach. Indeed, the conference organizers, Edward Nell and Ghilain Deleplace, devoted nearly 70 pages to this comparison! My advocacy of a horizontalist position was only implicit, since the horizontalist–structuralist debate was just starting. I argued that the central bank was able to control the short-term nominal interest rate (as well as the real rate). In addition, since credit is the key to economic activity, I contended that direct credit controls also ought to be at the heart of monetary policy – an argument made notably by Richard Kahn and Hyman Minsky. About the target interest rate, I picked up the case previously made with my colleague Seccareccia, to the effect that the interest rate is a distributive variable, and hence that the central bank ought to set a *fair* rate. This was a concept first elaborated by Luigi Pasinetti. We have recently given more meat to this proposal (Lavoie and Seccareccia 2019).

When I wrote the 1996 article in the *Scottish Journal of Political Economy* (Chapter 9, this volume), I thought that I would manage to put to rest most of the controversies surrounding the horizontalist versus structuralist controversy. Its main objective was to deny the necessity of a rising supply curve of credit and that of a rising LM curve in the IS/LM model, which were, so it seemed, at the heart of the structuralist position. My view, still held today, was that by accepting these constructs post-Keynesians could not free themselves from the stranglehold of mainstream economics. Many of the arguments that I put forth rely on the need to consider that what might be true at the microeconomic level may not occur at the macroeconomic level. In particular, there is the paradox of debt, where firms or banks that try to increase their leverage may in fact decrease it overall. In addition, the article shows that advocates of horizontalism, such as Kaldor or Basil Moore, did take credit restrictions by banks into account. I also pointed out that there is no incompatibility between horizontalism and liquidity preference, where the former is essentially associated with the differential between the base

rate set by the central bank and other rates of interest, such as the prime lending rate or long-term rates. I concluded the paper by contending that the key remaining issue might only be the determinants of that central bank base rate.

The article on the reflux mechanism (Chapter 10, this volume) as endorsed by Kaldor and Robinson, published in 1999 in the *Cambridge Journal of Economics*, can be understood as an extension of the previous article. The main purpose of the article was to tackle the following puzzle: assuming that the supply of bank credit is the source of bank deposits, how can the supply of bank deposits be reconciled with the demand for deposits? I showed in the article that both Moore and I had argued in the past that the reconciliation could operate through changes in interest rate differentials (so that the views of horizontalist advocates were not naive). But I also contended that the main mechanism was likely to be a reflux mechanism. While it was generally well known that Kaldor had put forward this mechanism as a defense of the endogenous money theory, one important contribution of the paper, induced to some extent by Rochon's critique of my 1991 brief comment on Robinson, was to rehabilitate the monetary analysis that she had provided in her 1956 book, where she also endorsed the reflux mechanism. This reflux mechanism played a key role during the Global Financial Crisis: when central banks pursued quantitative easing, many agents acquired cash only to get rid of it by paying back their previously accumulated debts.

Finally, I was asked by Philip Arestis and Malcolm Sawyer to give another go at the horizontalist–verticalist debate, and this became the 2006 chapter 'Endogenous money: Accommodationist' (Chapter 11, this volume), while Sheila Dow was asked to write on 'Endogenous money: Structuralist'! Readers will find in my chapter some of the same arguments present in previous papers, but there were several new twists to it. First, I argued that the new operating procedures described by the Bank of Canada and the Fed were consistent with the standard horizontalist description of endogenous money, showing that the actions of these two institutions were essentially defensive; second, I pointed out that New Keynesian authors, when describing these new procedures, were in fact exactly adopting the graphical representation that one could find in the works of Kaldor or Moore; third, I argued that SFC models showed that the apparent independence of the supply of money and of the demand for money was an illusion, as these two variables had to be reconciled either through the reflux mechanism in the simplest models, or through a combination of the reflux mechanism and interest differentials in more sophisticated models. Thus comprehensive SFC models can combine the horizontalist approach with a generalized liquidity preference framework. They also show that one must go beyond the partial equilibrium graphical analysis still done by some post-Keynesians, as I maintained again recently (Lavoie and Reissl 2019).

Three innovating articles

Part IV presents what I consider to be three innovating articles. The first paper, published in 2005 in the *Journal of Post Keynesian Economics* (Chapter 12, this volume), could be considered as another contribution to the debate between horizontalism and structuralism, but I prefer to consider it as an original contribution to the analysis of the procedures newly followed by the Bank of Canada as well as those of the Fed. Officials at the Bank of Canada had explained in front of academic economists the principle of the corridor system with zero reserve requirements as early as 1987, but at the time I think that only Mario Seccareccia, my former teacher Tom Rymes and I understood how this could be achieved. This system was

gradually put in place in Canada from 1991 to 1999. The peculiarities of the Canadian payment system are further analyzed in more detail in a recent paper of mine (Lavoie 2019a). The 2005 paper also explained the differences with respect to the American system and why it could be misinterpreted as a system where the Fed did not have full control over the fed funds rate. The article, once again, elucidated why central banks have to pursue defensive operations – an explanation tied to the arguments presented at the time by neo-chartalists such as Warren Mosler (1997–98) and Randall Wray (1998).

The second paper (Chapter 13, this volume) comes out from a 2009 book that collected presentations made at the 12th conference of the Research Network Macroeconomics and Macroeconomic Policies – the FFM Berlin conference, at the end of October 2008, in the midst of the Global Financial Crisis. I remember from that conference that the Bundesbank vice-president responsible for financial innovations told us that just a year before the Lehman Brothers default he did not know what the alphabet soup of MBS, ABS, ABCP, CDO or CDS meant! Neither did I for that matter at the time! But I tried to catch up with it, presenting a balance-sheet matrix that could illustrate real-estate assets, mortgages, mortgage-based securities and repos, along with investment banks as the ultimate illustration of the usefulness of the stock-flow consistent approach. The first part of the paper was a critical survey of the various ways in which post-Keynesians – before the arrival of SFC models – had attempted to respond to critics alleging that their models did not provide an appropriate synthesis of the financial and real sides of the economy.

The third paper, published in 1997 (Chapter 14, this volume), is from a collection of essays that was edited by Joanílio Teixeira, from the University of Brasilia, whom I had met the previous year at a conference that he had organized in Brasilia. The paper deals with an application of Pasinetti's concept of the fair rate of interest (which he initially called the natural rate, and later, the just rate of interest) that I mentioned earlier. Using the average price of a house and the average weekly wage, one can compute how many weeks of labour are needed to purchase the average dwelling. This first calculation is an alternative measure of the extent of real estate inflation. To this, one can also add the lack of fairness arising from overly high interest rates. By making use of the monthly mortgage payment corresponding to the actual mortgage interest rate, one can compute how many weeks of labour it takes to purchase an average dwelling if entirely financed by a mortgage. It is often said that baby boomers had it easy, but the study shows that those who borrowed in the 1980s to acquire a house in Canada had to devote a much bigger number of weeks of labour to finance the acquisition of their home than their predecessors of the 1960s or 1970s. In 2016, this study was updated for Canada and also extended to the US real estate market.¹ The new studies showed that Canadian buyers in the 2000s had it just as hard as those of the 1980s while those in the 2000s in the USA had it real bad! The method can be applied to any other country.

After the global financial crisis

All the articles of Part V, in contrast to the previous ones, were written after the Lehman Brothers event. They are related, either directly or indirectly, to the huge changes that occurred as a consequence of the Global Financial Crisis, in particular with respect to the way monetary policies were conducted by central banks.

The 2010 paper (Chapter 15, this volume), published in the *International Journal of Political Economy*, dealt precisely with the changes that occurred within the American

monetary system. The paper starts with the events of August 2007 when banks declined to lend to each other, forcing the European Central Bank to provide advances to those bank that were running a negative clearing position. The paper tracks how the Fed responded to the rising uncertainty and then to the Lehman Brothers debacle, showing how it succeeded, or did not succeed, in achieving its target Fed funds rate, in particular when it decided to adopt a floor system, that is, when the target rate became the interest rate on reserves. The second part of the paper is devoted to the consequences of the crisis for our understanding of monetary theory. In particular I provide a critique, enlightened by post-Keynesian theory, of the arguments advanced by various economists working at the Fed. Finally, I explore how post-Keynesian monetary theory also needs to be modified when a central bank runs a floor system with quantitative easing.

The second paper is my *friendly critique* of neo-chartalism, now better known as Modern Monetary Theory or Modern Money Theory (MMT), published in 2013 (Chapter 16, this volume). As said earlier, my later writings were certainly positively influenced by the works of MMT advocates, specifically thanks to their analysis of the link between government expenditure and its impact on the balance sheets of central banks and the commercial banks. Theirs is a key contribution to post-Keynesian monetary theory. I still believe however, as also reflected in a recent short paper (Lavoie 2019b), that some MMT statements are not appropriate. They arise from the consolidation of the balance sheets of the government and of the central bank. Besides this, as a long aside, the paper contains several pages devoted to the Eurozone setup, which pertains to explain why several members of the Eurozone, the GIIPS, suffered from a Eurozone-made sovereign debt crisis, which in fact was predicted by MMT authors (and my former co-author, Wynne Godley) through their analysis of the various degrees of sovereign currency.

The third paper, published in 2015 in the *International Journal of Political Economy* (Chapter 17, this volume), picks up the same theme: why is it that Eurozone countries running current account deficits got into so much trouble? Here the focus of the paper is the similarities and differences of Keynes's plan for an international monetary payment system and the Eurozone setup with its TARGET2 payment system. My main argument was that because of the existence of TARGET2, the Eurozone crisis could not be a balance-of-payment crisis; it was due to a flawed setup of the Eurozone along with the spirit of the Maastricht Treaty. This got me into a debate with my friend Sergio Cesaratto who, despite an analysis which was no different from mine, came down to the conclusion that the Eurozone crisis was indeed a balance-of-payment crisis (Cesaratto 2015; Lavoie 2015). I must say that I am rather pessimistic about the economic future of Eurozone countries. There are ways to improve the situation, but these all seem politically impossible, as cogently demonstrated by Sawyer (2017). I do believe that the Eurozone is there to stay; but its members are likely to suffer from secular stagnation.

The next paper was published in 2016 in the *Brazilian Keynesian Review* (Chapter 18, this volume). As all the papers of this section, it deals with the consequences of the 2008 financial crisis: its impact on central bank independence, inflation targeting and the introduction of new objectives for the central bank such as financial stability, as well as the *remise en cause* of the money multiplier story and thus the adoption by central bankers of the post-Keynesian endogenous money theory. An important part of the paper is devoted to quantitative easing. It is shown that Keynes, in 1930, advocated a policy of quantitative easing when faced with a

deep recession, well before Milton Friedman. Keynes, however, believed that the positive effects of quantitative easing were likely to occur through its effects on the rates of interest and stock market prices, not through some simple link between reserves, money and economic activity.

The last paper of this part (Chapter 19, this volume) was published in 2018 in the *European Journal of Economics and Economic Policies: Intervention*, a journal of which I am one of the editors. This paper was written in collaboration with Brett Fiebiger, a former post-doc of ours at the University of Ottawa who resides in Australia. The main theme of the article is to distinguish, with the help of balance sheets, between the various forms of quantitative easing (QE) policies that have been suggested since the beginning of the financial crisis and the Eurozone crisis. These include QE with banks, QE with non-banks, QE for the people, green QE and Corbyn's people's QE. In a way, we have moved full circle, in the sense that this final article provides a pedagogical examination of quantitative easing which was missing in the 'Primer on endogenous credit-money' found in the very first part of this book. Additional reflections on the justifications that have been provided for unconventional monetary policies can be found in Fiebiger and Lavoie (2020a; 2020b).

A final overview

The last paper of this collection (Chapter 20, this volume) is a chapter that was published in the 2011 book edited by Engelbert Stockhammer and Eckhard Hein – the organizers of the Berlin post-Keynesian summer school, sponsored by the FMM and the Hans Böckler Foundation. The chapter is the result of the presentations that I made to the students during the first two events, in 2008 and 2009. Indeed, a number of these former students are now instructors at the most recent editions of the summer school! I thought the chapter would constitute a nice wrap-up for the whole book as it provides a synthesis of the various debates and developments that occurred over the years in post-Keynesian monetary theory. The chapter offers tables which identify the main distinguishing features of mainstream and post-Keynesian monetary theory; it presents my assessment of the horizontalist-structuralist controversy; it provides an introduction to the SFC approach advocated by Wynne Godley; and it supplies an appraisal of the evolving operating procedures of central banks, along with how their description by MMT scholars have enhanced our understanding of the theory of public finance.

Conclusion

To conclude, I should also refer readers to an article of mine, which was too recent to be included in this collection. In Lavoie (2019c), I go through what I consider to be the main advances of post-Keynesian economics in money and finance, dealing in particular with the credit-creation role of banks and the controversial issue of how shadow banking is dependent on standard banks – an issue also recently tackled in more detail by a doctoral student of mine – Rudy Bouguelli (2020). There are also two chapters in my 2014 book (Lavoie 2014) that deal with monetary theory and international finance which may contain additional features that are not to be found in the present collection.

Overall, I think it is fair to say that post-Keynesian monetary theory is much clearer and complete today than it was when I started my academic career in 1979. However, it is still

worth reading older texts, mine and those of my predecessors, as gems can always be found there.

Note

1. For Canada, see: https://www.broadbentinstitute.ca/cost_home_today_double_amount_weeks_labour_time_compared_1970s?recruiter_id=94751
For the USA, see: <https://www.ineteconomics.org/perspectives/blog/the-unfairness-of-housing-purchases-through-time>

References

- Bertocco, G. (2001), 'Is Kaldor's theory of money supply endogeneity still relevant?', *Metroeconomica*, **52** (1), 95–120.
- Bouguelli, R. (2020), 'Is shadow banking really akin to banking? A critical analysis in light of monetary theory', *Journal of Post Keynesian Economics*, **43** (1), 1–27.
- Cesaratto, S. (2015), 'Balance of payments or monetary sovereignty? In search of the EMU's original sin – Comments on Marc Lavoie's The Eurozone: Similarities to and differences from Keynes's Plan', *International Journal of Political Economy*, **44** (2), 142–56.
- Fiebiger, B. and M. Lavoie (2020a), 'Helicopter Ben, monetarism, the New Keynesian credit view and loanable funds', *Journal of Economics Issues*, **54** (1), 79–98.
- Fiebiger, B. and M. Lavoie (2020b), 'Central bankers and the rationale for unconventional monetary policies: Reassessing, renouncing or recasting monetarism?', *Cambridge Journal of Economics*, forthcoming.
- Godley, W. and M. Lavoie (2007), *Monetary Economics: An Integrated Approach to Credit, Money, Income, Production and Wealth*, Basingstoke: Palgrave Macmillan.
- Lavoie, M. (1982), 'Les post-keynésiens et la monnaie endogène', *L'Actualité économique*, **58** (1–2), 191–221.
- Lavoie, M. (1992), *Foundations of Post-Keynesian Economic Analysis*, Aldershot, UK and Brookfield, VT, USA: Edward Elgar Publishing.
- Lavoie, M. (2014), *Post-Keynesian Economics: New Foundations*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar Publishing.
- Lavoie, M. (2015), 'The Eurozone crisis: A balance-of-payments problem or a crisis due to a flawed monetary design?', *International Journal of Political Economy*, **44** (2), 157–60.
- Lavoie, M. (2019a), 'A system with zero reserves and with clearing outside of the central bank: The Canadian case', *Review of Political Economy*, **31** (2), 145–58.
- Lavoie, M. (2019b), 'Modern monetary theory and post-Keynesian economics', *Real-World Economics Review*, **89**, 97–108.
- Lavoie, M. (2019c), 'Advances in the post-Keynesian analysis of money and finance', in P. Arestis and M. Sawyer (eds), *Frontiers of Heterodox Macroeconomics*, London: Palgrave-Macmillan, 89–130.
- Lavoie, M. and M. Baslé (1996), 'La pensée monétaire de Jacques Le Bourva: Analyse et historique', *Revue d'économie politique*, **106** (2), 269–91.
- Lavoie, M. and S. Reissl (2019), 'Further insights on endogenous money and the liquidity preference theory of interest', *Journal of Post Keynesian Economics*, **42** (4), 503–26.
- Lavoie, M. and M. Seccareccia (2019), 'Some reflections on Pasinetti's fair rate of interest', *Bulletin of Political Economy*, **13** (2), 85–111.
- Mosler, W. (1997–98), 'Full employment and price stability', *Journal of Post Keynesian Economics*, **20** (2), 167–82.
- Roche, L.-P. (1999), *Credit, Money and Production: An Alternative Post-Keynesian Approach*, Cheltenham, UK and Northampton, MA, USA.
- Sawyer, M. (2017), *Can the Euro be Saved?*, Cambridge, UK and Malden, MA, USA: Polity Press.
- Wolfson, M.H. (1996), 'A Post Keynesian theory of credit rationing', *Journal of Post Keynesian Economics*, **18** (3), 443–70.
- Wolfson, M.H. (2012), 'Credit rationing', in J.E. King (ed.), *The Elgar Companion to Post Keynesian Economics: Second Edition*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar Publishing, 115–21.
- Wray, L.R. (1998), *Understanding Modern Money*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar Publishing.