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Macroeconomics after Kalecki and Keynes: Post-Keynesian Foundations,
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Summary
The first objective of this book is to provide the foundations for post-Keynesian macroeconomics and a comprehensive post-Keynesian macroeconomic model with the respective macroeconomic policy mix, in order to achieve full employment, constant inflation and to avoid external imbalances. The second objective is to embed these post-Keynesian macroeconomics and macroeconomic policies into the post-Keynesian research programme more generally. Finally, the third objective is to present the application of some of these post-Keynesian macroeconomics in some recent areas of research.

The book is organised as follows. Chapters 2 and 3 provide the methodological and historical-theoretical context for modern post-Keynesian macroeconomics. In Chapter 2, the methods and the history of post-Keynesian economics are reviewed. First, heterodox economics in general, including post-Keynesian economics, is distinguished from orthodox economics from a methodological perspective, following Lavoie's (2014, Chapter 1) five presuppositions. Then the different strands in post-Keynesian economics are presented: the fundamentalist Keynesians, the Kaleckians, the Kaldorians, the Sraffians and the Institutionalists. Their differences and, in particular, their commonalities, are pointed out. It is argued that there are five major claims or features common to these strands, which make post-Keynesian economics a distinct school of thought in heterodox economics. Then, the stages of development of post-Keynesian economics since the foundation of this school with the works of Michal Kalecki (1932, 1933, 1935) and John Maynard Keynes (1933a, 1936, 1937) are presented. Finally, the current state of post-Keynesian economics as an alternative to mainstream orthodox economics is briefly assessed.

Chapter 3 addresses the roots of post-Keynesian macroeconomics in the works of Kalecki and Keynes in more detail, focussing on the principle of effective demand, money, credit and finance. Applying Schumpeter's (1954) distinction between 'monetary analysis' and 'real analysis', not only Kalecki's and Keynes's theories have to be considered as 'monetary analysis', but also Marx's. Furthermore, Kalecki has been considerably influenced by Marx's (1885) approach towards effective demand and capital accumulation. That is the reason why also Marx's views on money, effective demand and capital accumulation are presented in this chapter. Finally, since there has been some confusion, partly also in post-Keynesian economics, about the relationship between endogenous credit, finance, investment and saving, the Monetary Circuit approach is presented in the last part of Chapter 3, in order to shed some clarifying light on these relationships.

Chapters 4 – 6 contain the core of the book and gradually develop a full post-Keynesian short-run macroeconomic model and the implications for a post-Keynesian macroeconomic policy mix in order to achieve full employment, price stability and a balanced current account. The basic structure of the model is inspired by the previous but incomplete works of Hein and

Stockhammer (2009b, 2010, 2011b). The model versions are built on a post-Keynesian view of a monetary production economy with creditor-debtor relationships and the endogeneity of the volume of credit and the stock of money. The short-term interest rate is an exogenous policy variable under control of the central bank, and the long-term interest rate is also affected by liquidity and risk assessments of banks and financial wealth holders. Since there are no systematic feedbacks of economic activity on these determinants, the long-term interest rate is also taken as an exogenous variable for the income generation process. In the models, there are three groups of private actors, rentiers (creditors), firms (debtors) and workers. Income distribution between these three groups is important and affects the level of output and employment. The models are short-run models in the sense that all the stocks (capital, financial assets and liabilities) are taken as given and exogenous, as results of past developments. The labour force and labour supply are also taken to be given and exogenous. Usually, neither the capital stock nor the labour force are fully utilised, which means that the model economies are characterised by the underutilisation of the capital stock and by unemployment. As indicated by Keynes (1936) and Kalecki (1935, 1954), such underutilisation is the normal state of affairs in capitalist or monetary production economies.

Chapter 4 starts with a detailed explanation of the post-Keynesian horizontalist approach towards interest, credit and money, which is used in the following macroeconomic models. Then several model versions with fixed prices are developed, starting with the basic model for a closed private economy without taxes and government expenditures. The effects of changes in model parameters, like firms' animal spirits, rentiers' propensity to save, the profit share and the rate of interest on equilibrium output and income are derived. It is shown that the model generates the paradox of thrift and a paradox of costs; aggregate demand is hence wage-led. Changes in the rate of interest or the stock of debt have no unique effects. In the next step, the government is explicitly introduced into the fix price model and the roles of taxes, government expenditures and government budget deficits are discussed. Then, some open economy features are included, introducing exports and imports of goods and services with the rest of the world, and analysing the effects of exogenous changes in interest rates, income distribution and the nominal exchange rate. In the next step, wage inequality is integrated into a closed economy version of the model and the macroeconomic effects of relative income concerns in the consumption function are discussed. Finally, the focus is shifted to the short-run macroeconomics of gender pay gaps, both for a closed and an open economy model.

Whereas distribution conflict only affects income shares in the model versions of Chapter 4, Chapter 5 introduces the post-Keynesian notion of conflict inflation. Distribution conflict between firms and workers thus determines the wage and profit shares and may generate conflict inflation if distributional claims are inconsistent. Distribution between rentiers (creditors) and firms (debtors) is mainly determined by interest rate policies of the central bank and is affected by (unexpected) inflation generated in the distribution conflict between workers and firms. Workers' bargaining power is determined by the institutional features of the labour market and the social benefit system in the medium to long run, and by the rate of employment in the short run. The model generates a short-run 'inflation barrier', and thus a 'stable inflation rate of employment' (SIRE), and hence a kind of NAIRU. However, it is shown that this 'inflation barrier' is endogenous to demand-determined employment and macroeconomic policies in the medium to long run through various channels. Against this background, the interaction of the SIRE with the rate of employment determined by the goods market is analysed, and it is shown that the SIRE may be highly unstable. For central bank interest rate policies, the stabiliser suggested in the NCM, it is found that the effectiveness of these policies is asymmetric in the short run and may be detrimental in the medium to long run. Introducing the government into the model, it is shown that government expenditure policies do not suffer from these limitations. Then, an open economy version of a macroeconomic model with conflict inflation is presented and the role of the real exchange rate for the stabilisation around the SIRE is examined. While the models presented in that chapter already include some endogeneity channels of the SIRE, via the interest rate, the tax rate or the real exchange rate, some further channels are finally presented: persistence mechanisms in the labour market, wage aspirations based on conventional behaviour, and long-run investment effects on the capital stock and on firms' pricing behaviour.

Based on the model results of Chapter 5, a comprehensive post-Keynesian macroeconomic policy mix as an alternative to the NCM is presented in Chapter 6. This post-Keynesian policy mix requires coordination among the economic policy actors of each of the areas. In this alternative policy package, monetary policy should be aiming at stable distribution of income by targeting a long-term nominal (real) interest rate, which should not exceed trend nominal (real) GDP growth. Furthermore, central banks, together with legal regulation of financial institutions by governments, are responsible for the stability of the financial system, and the central bank has to act as a lender of last resort for the banking system and, in particular, as a guarantor of government debt. Nominal stabilisation, i.e. stable inflation, should be tackled by income and wage policies, in particular through mediation of distributional conflicts via wage bargaining co-ordination at the macroeconomic level. This would also contribute to stable income distribution. Real stabilisation and aggregate demand management, both in the short and in the long run, should be the task of fiscal policy, making use of government expenditures and government deficits/surpluses, following a 'functional finance' (Lerner 1943) approach. Macroeconomic policies should be coordinated internationally, in order to avoid current account imbalances. Existing current account imbalances should be addressed symmetrically by deficit and surplus countries, and deficit countries should improve non-price competitiveness by means of industrial and regional policies.

While the main focus of this book is on short-run macroeconomics, in particular in the models in Chapters 4 and 5, Chapters 7 – 9 address rather medium- to long-run topics. In order to discuss the recent issues of demand and growth regimes before and after the 2007-09 crises or the macroeconomic implications of ecological constraints, some basic knowledge about distribution and growth theories is required. As recent books by Blecker and Setterfield (2019), Foley et al. (2019), Hein (2014a) and Lavoie (2014, Chapter 6) contain detailed and extensive presentations of orthodox and heterodox distribution and growth theories, Chapter 7 presents only the basic versions in a unified modelling framework. The chapter makes use of the method of model closures in order to distinguish between different approaches. Such approaches include the old and new neoclassical as well as the classical and orthodox Marxian distribution and growth theories, all driven by the supply side. As alternatives, this chapter focusses on several varieties of the demand driven post-Keynesian distribution and growth models, including the Kaldor-Robinson model, the Kalecki-Steindl approach with the post- and the neo-Kaleckian models, and finally the Sraffian Supermultiplier model driven by non-capacity creating autonomous demand growth. In the context of the post-Kaleckian model, the important distinction between wage- and profit-led demand and growth is presented. Finally, also productivity growth and hence the growth of potential output are endogenised into a Kaleckian demand-led growth model.

Chapter 8 discusses macroeconomic demand and growth regimes in finance-dominated capitalism, recent stagnation tendencies and the role of macroeconomic policy regimes. In Chapters 4, 5 and 7, different regimes or cases are derived regarding the effects of changes in functional income distribution, interest rates or indebtedness as exogenous variables on endogenous equilibrium demand, output and growth. In Chapter 8, the perspective is changed such that the focus is on the sources, the financing and the drivers of demand and growth. First, based on the macroeconomic channels of influence of financialisation, i.e. an increasing dominance of the financial sector, financial motives and financial instruments since the late 1970s/early 1980s in advanced capitalist economies, the concept of demand and growth regimes in finance-dominated capitalism is presented. Focussing on the sources of demand and the way the macroeconomic demand components are financed, the debt-led private demand boom regime, the domestic demand-led regime, the weakly export-led regime and the export-led mercantilist regime are distinguished. Second, some empirical results on demand and growth regimes before the 2007-09 Global Financial Crisis and Great Recession, the changes in regimes in the course of and after these crises and on the emanating tendency towards stagnation are presented. Third, the identified regimes, the regime changes and the related tendencies towards stagnation are integrated into a stylised Kaleckian distribution and growth model, relying on and extending the framework introduced in Chapter 7. Finally, the most recent debate on growth drivers in post-Keynesian economics and Comparative Political Economy is addressed. The concept of a macroeconomic policy regime, integrating the post-Keynesian notion of a desirable or functional macroeconomic policy mix developed in Chapter 6, is introduced and applied. From all this it is concluded that current stagnation tendencies can be viewed to a large extent as the result of 'stagnation policy' (Steindl 1976, 1979).

Chapter 9 deals with some of the recent debates in post-Keynesian and Ecological economics addressing the macroeconomic implications of ecological constraints. First, the relationship between post-Keynesian and Ecological economics is reviewed, and it is argued that these two heterodox schools of thought have some basic features in common, which should facilitate communication and an improved understanding of the issues at stake. Second, the immediately pressing problem of climate change and the required ecological transformation of modern economies is touched upon. Concepts of de-growth and green growth are reviewed, and their macroeconomic implications are pointed out. Finally, implications of low or even zero long-run growth imposed by ecological constraints for macroeconomic stability in a monetary production economy are addressed. The question of a growth imperative given by endogenous money and credit and positive interest rates and the requirement of positive profit rates is examined, in particular. It is shown that zero growth with endogenous credit, positive interest rates and positive profits is possible and can be stable under a set of restrictive assumptions regarding behaviour of firms, households and the government, and specific conditions regarding model parameters, like the rate of interest and the propensities to consume out of income and out of wealth. Finally, the conditions for stable employment with zero growth and technological progress are explored. It is concluded that a socio-economic and –ecological transformation in order to respect the environmental constraints is a huge challenge and requires a significant transformation of capitalism as we know it. Green New Deal concepts for the socio-ecological transformation, as well stabilising low or zero growth in the long run, would have to be more closely linked with the post-Keynesian macroeconomic policy mix derived in Chapter 6.

Based on the current challenges for macroeconomics and the elaborations in this book, Chapter 10 contains a short outlook on the perspectives of post-Keynesian economics. It is argued that, first, post-Keynesians should improve their research programme in those areas which are underdeveloped, without giving up their strengths in macroeconomics and macroeconomic policies. This also implies to improve the cooperation with other heterodox schools, like Ecological economics, Institutional economics, Marxian economics, and with Critical and Comparative Political Economy, and International Political Economy, in order to contribute to a pluralistic political economy research programme. Second, it is argued that post-Keynesians would have to focus and concentrate on defending and improving the heterodox academic infrastructure, regarding university positions, research funding, graduate programmes, journals and appropriate journal rankings, associations and networks, conferences and summer schools. Third, in order to have an impact on economic policies and to contribute to a more progressive social environment for academic research, post-Keynesians need to maintain and to improve their cooperation with trade unions, social movements and progressive political parties, as well as with research institutes and think tanks outside the university sector.

References

Blecker, R.A. and Setterfield, M. (2019), *Heterodox Macroeconomics: Models of Demand, Distribution and Growth*, Cheltenham, UK: Edward Elgar Publishing.

Foley, D.K., Michl, T.R. and Tavani, D. (2019), *Growth and Distribution*, 2nd edition, Cambridge, MA and London: Harvard University Press.

Hein, E. (2014a), *Distribution and Growth after Keynes: A Post-Keynesian Guide*, Cheltenham, UK: Edward Elgar Publishing.

Hein, E. and Stockhammer, E. (2009b), 'A post-Keynesian alternative to the New Consensus Model', in G. Fontana and M. Setterfield (eds.), *Macreoeconomic Theory and Macroeconomic Pedagogy*, Basingstoke, UK: Palgrave Macmillan.

Hein, E. and Stockhammer, E. (2010), 'Macroeconomic policy mix, employment and inflation in a post-Keynesian alternative to the New Consensus model', *Review of Political Economy*, **22**(3), 317-354.

Hein, E. and Stockhammer, E. (2011b), 'A post-Keynesian macroeconomic model of inflation, distribution and employment', in E. Hein and E. Stockhammer (eds.), *A Modern Guide to Keynesian Macroeconomics and Economic Policies*, Cheltenham, UK: Edward Elgar Publishing.

Kalecki, M. (1932), 'Koniunktura a inflacja' (The business cycle and inflation), *Polska Gospodarcza*, **13**(48), 1411-1415, English translation in J. Osiatynski (ed.) (1990), *Collected Works of Michal Kalecki, Vol. I*: *Capitalism: Business Cycles and Full Employment*, Oxford: Clarendon Press.

Kalecki, M. (1933), *Proba teorii koniunktury (Essay on the Business Cycle Theory)*, Warszawa: Intstytut Badania Koniunktur Gospodarczych, English translation in J. Osiatynski (ed.) (1990), *Collected Works of Michal Kalecki, Vol. I: Capitalism: Business Cycles and Full Employment*, Oxford: Clarendon Press.

Kalecki, M. (1935), 'A macrodynamic theory of business cycles', *Econometrica*, **3**(3), 327-344, reprinted in J. Osiatynski (ed.) (1990), *Collected Works of Michal Kalecki, Vol. I: Capitalism: Business Cycles and Full Employment*, Oxford: Clarendon Press.

Kalecki, M. (1954), *Theory of Economic Dynamics: An Essay on Cyclical and Long-run Changes in Capitalist Economy*, London: Allen and Unwin, reprinted in J. Osiatynski (ed.) (1991), *Collected Works of Michal Kalecki, Vol. II: Capitalism: Economic Dynamics*, Oxford: Clarendon Press.

Keynes, J.M. (1933a), 'A monetary theory of production', reprinted in *The Collected Writings of J.M. Keynes*, *Vol. XIII,* London: Basingstoke, UK: Macmillan, 1987.

Keynes, J.M. (1936), *The General Theory of Employment, Interest, and Money*, reprinted in *The Collected Writings of J.M. Keynes*, *Vol. VII*, London: Macmillan, 1973.

Keynes, J.M. (1937), 'The General Theory of Employment', *Quarterly Journal of Economics*, 51(2), 209-223, reprinted in *The Collected Writings of J.M. Keynes*, *Vol. VII,* London: Macmillan, 1973.

Lavoie, M. (2014), *Post-Keynesian Economics: New Foundations*, Cheltenham, UK: Edward Elgar Publishing.

Marx, K. (1885), *Das Kapital. Kritik der politischen Ökonomie, Zweiter Band: Der Zirkulationsprozeß des Kapitals*, 2nd edition 1893, edited by F. Engels, reprinted as Marx-Engels-Werke, Volume 24, Berlin: Dietz Verlag 1963, Englisch translation: *Capital. A Critique of Political Economy, Volume 2: The Process of Circulation of Capital*, New York: International Publisher, 1967

Schumpeter, J.A. (1954), *History of Economic Analysis*, New York: Oxford University Press.

Steindl, J. (1976), 'Introduction', in J. Steindl, *Maturity and Stagnation in American Capitalism*, 2nd edition, New York, London: Monthly Review Press.

Steindl, J. (1979), 'Stagnation theory and stagnation policy', *Cambridge Journal of Economics*, **3**(1), 1-14.