Faculty of Social Sciences (World Politics)
University of Helsinki
Finland

THE BOND-MARKET-POWER FALLACY

Lauri R. A. Holappa

ACADEMIC DISSERTATION

To be presented, with the permission of the Faculty of Social Sciences of the University of Helsinki, for public examination in lecture room PII, Porthania, on 26th of May 2020, at 2 PM.

Helsinki 2020

Publications of the Faculty of Social Sciences 147
Political Science

Distribution and sales:
Unigrafia, Helsinki
https://shop.unigrafia.fi

ISSN 2343-273X (pbk)
ISSN 2343-2748 (web)

ISBN 978-951-51-3447-9 (pbk)
ISBN 978-951-51-3448-6 (PDF)

Unigrafia
Helsinki 2020

ABSTRACT

This is a study about a deep-seated fallacy in modern Political Economy research. This myth emphasises the ability of the bond markets to discipline the actions of all states by demanding either higher interest rates on government bonds or by refraining from lending to governments they dislike. I call this assumption the bond-market-power narrative (BMPN) and demonstrate its popularity in both strands of modern Political Economy, namely international political economy and comparative political economy.

I prove that the BMPN must rely on a closed-systems-based understanding of economic theory in order to be internally coherent. Theoretical approaches founded on a closed-systems metatheory argue that the primary aim in the social sciences should be to detect geo-historical regularities between key factors. Relying on a critical-realist philosophy of social sciences I argue that such approaches are highly problematic because stable sequences cannot reliably be found in open systems such as human societies.

I suggest that the so-called Say's law forms the exact mechanism of how the closed-systems approach is realised in BMPN-based studies. Say's law says that supply creates its own demand – at least in the long run – which is why demand stimulation cannot have important positive long-term effects. This is crucial since the key argument in my study is that all governments enjoying relatively strong monetary sovereignty can mostly bypass bond market influence by using direct central bank financing of fiscal deficits if there is enough political support for such actions.

BMPN-based Political Economy literature, however, rejects this possibility – sometimes explicitly and at times implicitly. In economic theory, the risks of central bank financing of fiscal deficits are virtually always associated with the acceptance of some form of Say's law. The idea is that fiscal deficits are possible in the long run only if government spending is financed through the central bank. However, since there is no output gap in the long run, the deficits primarily cause rising or even accelerating inflation rates. I conclude that BMPN scholars must have accepted, at least passively, such economic-theoretical views. BMPN-based studies could not otherwise be internally logical.

For me, BMPN scholarship includes only studies that clearly present the material structures of the world economy as sources of market discipline. So, by definition, BMPN scholars do not discuss bond-market power as a political idea being promoted by certain fractions of the society. Rather, in BMPN scholarship, bond-market power is predominantly something that has been connected to the crisis of the tax state and the deregulation of global finance which, consequently, have forced ostensibly sovereign governments to be at the mercy of bond market vigilantes.

I argue that the main schools of thought in economics compatible with the BMPN are neoclassical and classical-Marxian economics which both accept closed-systems theorising and some form of Say's law. The major school of thought that most notably rejects such theorising is post-Keynesianism. Post-Keynesian theory argues that social reality is defined by fundamental uncertainty. Thus, there is no automatic adjustment towards any "natural" or "normal" rate (whether we are speaking of growth, capacity utilisation or unemployment) and therefore, the level of effective demand may differ, and output gap exist in all possible intervals. I further argue that the criticisms of post-Keynesians against the adjustment mechanisms at the heart of Say's law are empirically convincing and therefore, the post-Keynesian depiction of the fiscal policy space is more accurate than neoclassical or classical-Marxian alternatives.

However, even though I argue that governments with relatively strong monetary sovereignty cannot be disciplined by bond markets, I also accept the existence of important external limitations on state-level economic policy. The most significant such limitation is the balance-of-payments (BOP) constraint which says that most countries are unable to run permanent current account deficits without risking a collapse of the exchange rate. Yet, in this study it is pointed out that BOP constraints have existed for as long as there has been a discrepancy between the open world economy and territorialised political authority. Hence, the structural power of capital is not a new phenomenon and the deregulation of global finance has not, principally, added important new layers to the disciplinary capabilities of the capitalist class – at least not in a material sense.

The most central finding of this study is that *the acceptance, whether passive or active, of a closed-systems macroeconomic perspective is a necessary component of the bond-market-power narrative*. Thus, the BMPN-based Political Economy studies do not primarily reveal much about the non-discursive power structures of the world economy. On the contrary, these studies tend to be based on a replication of orthodox economic-theoretical views – and are often even unaware of this. Consequently, the argument put forward in this study is that the rejection of the BMPN is necessary for the progress of modern Political Economy research.

PREFACE

This work is a product of 10 years of academic research, teaching and social activism but its roots can be found in the late 1990s. In the beginning of the 1990s, Finland had succumbed into a deep depression partly due to serious policy mistakes made in the 1980s when domestic financial markets had been deregulated hastily and the central bank had begun to conduct extremely harsh monetary policy. The results were devastating: unemployment rose from below five per cent to nearly 20 per cent, GDP sank 13 per cent in three years and serious social and health problems became widespread. The government's policy response was simple: austerity, devaluation and extreme tax cuts directed at the wealthiest of the society.

However, the long-term consequences of the 1990s were possibly even more profound than its immediate economic and social implications. The phrase "there is no alternative" (TINA) started to characterise the politics and the general social atmosphere of the decade. This didn't seem to bother most of the society as the quick Nokia-led recovery of the 1990s rose the income levels of the middle and upper classes astonishingly rapidly. The other side of the story was, of course, the thousands of ordinary people burdened with crippling debts and the long-term unemployment which had now become a permanent feature of the Finnish society that had previously enjoyed from nearly permanent full employment. Nonetheless, even many of those who had suffered from the depression, austerity and financial deregulation had absorbed the new hegemonic narrative which said that there were no other possibilities and the governments had simply run out of money.

The most severe consequences of the depression avoided middle-class kids like me even though economic anxiety and unemployment had hit my family too. However, the depression had a more thorough influence on a political-psychological level. My general feeling as a teenager growing up in the 1990s was that the future had been cancelled – the right to imagine a meaningful and rewarding life had been taken away. Yes, the prospects for a rather wealthy life with a nice apartment and occasional foreign holidays were high for a kid with my background but all this was surrounded with an array of necessities and preconditions. The outlook for academic and artistic work, political transformation or almost any other thing beyond capitalist production and market exchange had become dimmer.

The frustration arising from the likelihood of a meaningless life spent serving pointless commodity production encouraged me to question the premises of the TINA syndrome. The ostensible power of government bond markets and the necessity to avoid public sector deficits and debts drove me to find, understand and challenge the sources of these beliefs. Thus, from a very early age on, I became interested in the "politicality" of economic and social theory. When I learned more about the history of economic thought and the battles within economics, and to some extent other social sciences, I became ever more critical to the assumed neutrality and apoliticality of economic experts. I also became convinced that the scientific orientation towards social sciences is not one where you close your eyes to the ideological aspects of social theory in order to defend the social position of science or academic community. The fact that virtually all social theory and social science is, to some extent, political does not reduce their credibility but rather guides us into questioning them in a nuanced manner.

My own thinking and criticisms got more nuanced after the global financial crisis and beginning of the euro crisis when I also began my academic career. Even though these crises initially seemed to pave the way for a profound reformation of dominant economic beliefs, they were quickly captured to legitimise ever more aggressive cutbacks in government spending and impairments in the labour market. This social context encouraged me to select this very topic for my dissertation.

At some point, I started to question whether my subject was topical anymore since my project took a longer time than I initially expected and the social context of the study had changed somewhat. However, when I am now writing these words in the midst of possibly the biggest socio-economic collapse of modern capitalism, I have become certain that my study is more relevant than ever. Life during the corona crisis is characterised by fear, anxiety and uncertainty but this is not only fear about the immediate fate and survival of us and our loved ones. The fear is very much about future, the prospects for living a stable and decent life.

Governments have piled up huge debt loads in already two months after the beginning of the crisis. In Finland, some politicians, business lobbyists and journalists have already begun to demand austerity in order to avoid the "overindebtedness" of the government. At the same time, demands over direct central bank financing of government spending have increased rapidly and some previously reluctant economists have changed their views about the subject. However, at this point we cannot yet say whether the change in the global political economy is towards more Keynesianism or even stricter orthodoxy. I hope this study will shed light on the political-economic context and economic-theoretical assumptions surrounding the global discussion about the proper economic policy response to this latest crisis of capitalism.

This study is not just *my* study even though I am solely to blame for its potential shortcomings and mistakes. All academic work is always built on the publications and ideas of other scholars. I owe a huge intellectual debt to the many scholars studying the influence of ideas in global and national political economies as well as to the many post-Keynesian economists that have inspired me.

My supervisor Teivo Teivainen earns special thanks for all the support and advice he has given to me during the last ten years or so. Teivo has helped me to get the necessary funding for my project, read and commented dozens of my chapters and manuscripts – and never has he got tired of me and my prolonging PhD project (or at least he has been very successful in hiding that). As a supervisor Teivo's main asset is his calming and trusting presence. Almost every PhD project includes stages when the candidate just wants to give up the whole project and start doing something else. However, always when I have met or talked with Teivo, my confidence on the project and me as a researcher have improved and I have got new energy to plough through the project. A PhD candidate could not hope for a more helpful supervisor than Teivo.

My close collaborator Jussi Ahokas earns my most sincere compliments. We ran together a post-Keynesian oriented Finnish-language blog from 2010–2016 (Raha ja talous, Money and Economy in English). The style of the blog was academic but it still managed to become the most popular economics blog in Finland and had a relatively strong influence on the national economic policy debate. However, our blog was not only a platform which we used to bring new ideas into public discussion. It was also a process where I learnt maybe more than in any educational programme I have ever undergone in my life. Before we started our blog, there was virtually no post-Keynesian nor other heterodox economic-theoretical tradition – let alone active education – in Finland. We had to study and absorb the whole tradition from scratch together. Jussi's insights, statistical skills and other qualities were indispensable in this process. Our friendship and peer support have also been essential for me when many in the Finnish economics profession began to attack us aggressively – and often in rather low-minded ways – after our blog received considerable public attention. It is obvious that this work would not have been possible without Jussi's influence.

Heikki Patomäki has also been an inspirational figure in my academic career. There are very few scholars who are so widely-read and able to combine political theory with economics and other subjects in such a smooth and comprehensive way as Heikki is. For me, Heikki's lectures and publications have served as examples on how complex political–economic processes can and should be studied within Political Economy.

I am also indebted to Timo Miettinen who hired me for his research project for the final year of my PhD project. I could not have finalised my project without that contract. Timo is also one of the brightest minds in the Finnish academic community. He is one of the rare people who has always something new, stimulating and measured to say when he speaks or writes. It is obvious that in the future Timo will be one of the leading scholars in the Finnish academia – maybe in the whole Europe.

I also want to thank Miika Kabata, Joel Kaitila, Patrizio Lainà, Teemu Lari and Johan Meriluoto who read my manuscript and offered numerous valuable comments. My most sincere thanks go also to the pre-examiners Jamie Morgan and Magnus Ryner and the preliminary pre-examiner S. M. Amadae for important observations and feedback.

Other people who I want to give special thanks to are (in alphabetical order) Antti Alaja, Juhana Aunesluoma, Andreas Bieler, Timo Harjuniemi Jan Klabbers, Konsta Kotilainen, Bill Mitchell, Juri Mykkänen, Jenni Rinne, Ville-

Pekka Sorsa, Till van Treeck and Henri Vogt. There are also numerous people with whom I have had important and stimulating conversations that have helped me to improve and shape my argument. I am deeply grateful to all these people too even though I do not have the possibility to thank everyone by name.

I also want to thank my mother, father and sister for giving me the background that has enabled me to pursue a doctoral dissertation and an academic career. However, the one person who has been most important for the completion of this work is my spouse Laura who has backed me when times have been hard and I have pondered giving up both academic work and public activism. I know this has been a demanding period also for her – especially the final year before the public examination. I can only express my immense gratitude for Laura. This dissertation would not have been possible without her support, determination and caring.

I dedicate this dissertation to my son Eliel who gives me immeasurable joy and happiness every day.

Helsinki, May 2020
Lauri Holappa

CONTENTS

ABBREVIATIONS

BMPN	bond-market-power narrative
BoF	Bank of Finland
BOP	balance of payments
BWS	Bretton Woods system
CPE	comparative political economy
e.g.	*exempli gratia* [for example]
et al.	*et aliī* [and others]
EMU	Economic and Monetary Union
Fed	Federal Reserve
GDP	gross domestic product
ICU	International Clearing Union
i.e.	*id est* [that is]
IMF	International Monetary Fund
IOU	"I owe you" [document acknowledging a debt relation]
IPE	international political economy
IR	International Relations
MMT	Modern Money Theory / Modern Monetary Theory
QTM	quantity theory of money
SSP	social systems of production
UK	United Kingdom
US	United States
VoC	varieties of capitalism

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1 INTRODUCTION

The global financial crisis of 2007–2009 seemed first to signify the end point of 30 years of neoliberal economic hegemony. Financial deregulation together with growing income and wage disparities had driven the world economy to the worst crisis since the Great Depression of the 1930s[1]. Sinking growth rates and growing unemployment rates suggested that the world was in need of an economic policy revolution reminiscent of the Keynesian turn after the Second World War when the cameralist obsession with balanced budgets was replaced with Keynesianism.

In the early stages of the crisis, the atmosphere even in the mainstream Western media seemed to be sympathetic towards a paradigm shift in economic theory. The supremacy of Keynesian analysis seemed to be almost self-evident and there were many stories about the return of Marxism (see e.g. Wolf 2008; Hitchens 2009). The change in the tone of public discussion also spilled into the realm of economic policy as numerous countries, with the leadership of the United States, instituted discretionary stimulus measures.

However, the policy transformation ended up being very short-lived (see Ahokas & Holappa 2014a; Farrell & Quiggin 2017). A crucial turning point was the Greek government debt crisis that began in early 2010 and soon burst out into a fully-fledged eurozone fiscal crisis. Greece had lost the confidence of global bond market investors as its public debt to GDP ratio had soared to almost 150 per cent in 2010[2]. It was excluded from the bond markets, which forced the country to beg for emergency funding from other euro countries. In the end, Greece was submitted to the rule of the now infamous troika[3] and forced to adopt draconian spending and wage cuts (see e.g. Papadimitriou et al. 2014).

The fiscal problems soon spread to Ireland, Portugal and Spain. All these countries were forced into harsh austerity in the midst of financial market pressures. They served as examples of what could happen if constant fiscal rectitude was not upheld.

The consequence was a near complete overthrow of the Keynesian fiscal policies that had reigned during the previous couple of years. Austerity was

[1] A Minskyan interpretation of the financial instability behind the global financial crisis can be found in Wray (2012a) whereas van Treeck (2012) emphasises the role of income inequality.

[2] The exact debt ratio was not known at that time as Greek officials were caught of forging statistics. The numbers were, however, constantly updated in a worse direction (see e.g. The European Commission 2010), which likely only worsened the Greek situation.

[3] Troika consisted of the European Commission, the European Central Bank and the International Monetary Fund.

imposed not only in the crisis countries of the eurozone but also in other parts of the euro area and Global North[4].

Several heterodox and mainstream dissident economists tackled the harsh policy response with severe criticism. They claimed that austerity was only prolonging the fiscal crisis and inflicting a new policy-driven recession[5]. Similar criticisms were also expressed by numerous political economists but many of them saw also more deep-seated repercussions in the sudden policy turn.

The most common interpretation among political economists seemed to be that the euro crisis was a direct consequence of the increased disciplinary powers of the global financial markets. The leading proponent of this view was Wolfgang Streeck (2013a) who has claimed that the euro crisis only made visible the fact that Western welfare states have already been living on "bought time" for quite a long period.

Streeck (2013a) has insisted that the erosion of national tax bases from the 1970s onwards has led to increasing public debt ratios all around the Global North. Since budgets are no longer balanced, governments are now continuously rolling over new debt. This has given the bond markets tremendous disciplinary powers and, by and large, made governments submit to the authority of bond market investors. The euro crisis, thus, was a mere first showdown of a tumultuous process that will only deepen in the coming years.

Streeck (2013a) argues that bond markets will discipline those governments whose debt ratios become too high, which means that virtually all governments will be forced to cut their budget deficits at least in the long run to avoid suffering from higher interest rates on government debt. Since tax competition prevents governments from raising the level of taxation, the only alternative is to restrict public spending. Thus, according to Streeck, the welfare state structures of the Global North are suffering from unforeseen pressure.

Streeck argues that this brings into question the whole model of democratic capitalism that developed in the Global North during the Post-Second World War era. Political economists have argued that the peculiar post-war conditions enabled the development of different "varieties of capitalism". Capital movements were heavily regulated and states' capacity to tax was high. Thus, there was no similar tendency towards privatisation, commodification and deflationary macroeconomic policies as we are witnessing today. This meant that capitalist political economies could be organised in multiple ways. There were of course those systems that relied more on free markets (liberal

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[4] A good depiction of austerity in the eurozone is given by Truger (2014). See also Farrell & Quiggin (2017).

[5] For a discussion about mainstream and heterodox policy responses see e.g. Lavoie (2016). For heterodox criticism of austerity see for instance Mastromatteo & Rossi (2015).

market economies) but most European political economies were more heavily regulated and had stronger labour representation in decision-making (coordinated market economies) (Hall & Soskice 2001)[6].

All this seems to have changed from the viewpoint of Streeck's and his colleagues' above-described storyline, here described as the bond-market-power narrative (BMPN). The narrative says that all governments are now forced to adopt restrictive fiscal policies in order to avoid being disciplined by the bond markets. Hence, even in the Global North, there will only be limited room for Keynesianism or all-embracing welfare state structures in the future. Institutional rigidity might make the reform process slow and incremental, but the direction of change is evident: it is towards weaker welfare states and increased deregulation of labour and commodity markets. Margaret Thatcher's famous saying "there is no alternative" has finally become the reality.

However, Streeck's views are not original or new. There is a long tradition within the Political Economy[7] literature claiming that the increasing power of financial markets seriously limits the political space of nation states. What is most interesting is the "critical" nature of much of this literature. The scholars making these points are regularly self-proclaimed Marxists or scholars who otherwise openly highlight the emancipatory purposes of their research.

This argument can be found in both strands of modern Political Economy research: international political economy (IPE) and comparative political economy (CPE). Although IPE has mostly developed as a subfield of International Relations (IR) and CPE has mostly been an offshoot of political science and sociology, both these traditions are discussed under the rubric of Political Economy in this study. As regards the bond-market power, the shared features of the two broad traditions are far greater than their differences in the analysis of financial market-power scholarship. It can also be difficult to categorise some scholars or specific works as belonging exclusively to IPE or CPE. The boundaries of the two traditions of Political Economy research have become increasingly vague.

Probably the first political economists to present a more eloquent version of the BMPN were Stephen Gill and David Law in the late 1980s (see Gill & Law 1988; Gill & Law 1989). They argued that financial deregulation had boosted the "structural" aspects of the power of global capital. The various

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[6] There are also other notable ways of classifying varieties of capitalism. Gösta Esping-Andersen (1990), for instance, divides different models of capitalism into liberal, corporatist-statist and social democratic. Streeck (2015, 13) himself emphasises more those aspects that unite rather than separate out all forms of capitalism. However, if his analysis of the diminishing political space within capitalist nation states is correct, it logically follows that there is less variation between different capitalist political economies than before.

[7] Political Economy written in uppercase first letters refers here (and throughout this study) to the academic discipline while political economy in small letters refers to the field of study (political aspects of those spheres of the society that have usually been deemed to be "economic").

groups within the capitalist class no longer have to engage in mutual, and often difficult, cooperation in order to achieve their goals, since capital had gained a structurally advantageous position in the global economy by being able to relocate investment quickly.

According to Gill and Law (1989, 481), this was best seen in the bond markets in which investors' purchases could decline rapidly if governments adopted policies that were negatively perceived by the investor community. They claimed that this mechanism forced governments to implement similar neoliberal-type economic policies and made state-level politics almost irrelevant as a consequence.

Gill and Law's analysis was seen as a radical novelty at the time it was published, but it did not take many years to become part of the new canon. It is now somewhat rare to find general presentations of the most pressing issues in Political Economy when the central stage is not given to a version of this narrative even if the exact references would not be for Gill and Law's work. Political Economy conferences are also filled with papers dealing with some aspects of the disciplinary powers of financial markets.

Even though Gill and Law's approach is openly inspired by Marxism, the bond-market-power narrative soon spread to more mainstream Political Economy theory too[8]. Authors like Jeffry Frieden, Layna Mosley and Paul Pierson, to name just a few, started to present their versions of the BMPN from the 1990s onwards. Some of them might have read Gill and Law but quite likely their theorising proceeded as a separate process. Nonetheless, the BMPN was no longer just a vehicle for critical scholars to shed light on the structural power of global capitalism. On the contrary, it became part of core Political Economy theory – perhaps even part of the self-understanding of the whole discipline.

The central argument of this study is that BMPN has driven Political Economy in the wrong direction. It is now part of the core corpus of the discipline to argue that bond markets can punish all governments if they so will and the domestic political sphere has partly been diminished. It is further claimed that the power of bond markets is not merely discursive or ideational – meaning that the power of bond markets does not depend only on a set of broadly shared ideas. BMPN theory claims that governments must obey the dictates of bond market vigilantes in order to be able to roll over their debts, regardless of the "soundness" of their demands. Thus, what I call the bond-market-power narrative in this study, is an academic theory that understands bond-market power as a *material* phenomenon.

My argument is that this reading of bond-market power is highly problematic and, to a large extent, unrealistic. This study suggests that the BMPN is a credible narrative only if we accept a macroeconomic perspective I later term the closed-systems approach. Thus, what BMPN scholars have been

[8] The closeness of Gill and Law's analysis to orthodox interpretations has also been noted by Duane Swank (1998, 675).

putting forward is not only their reading of the power relations between states and bond markets, but a replication of key postulates of closed-systems macroeconomics. Quite often BMPN scholars seem not to have been very aware of the necessary theoretical conditions that have to be satisfied for their general argument to be logical. Hence, the aim in this study is to reveal the flaws and hidden but necessary assumptions behind the BMPN.

Political Economy is a discipline which is not only building on the assumptions of certain economic ideas, but it is also an investigation of their performative role in the society. Hence, it is a serious flaw in Political Economy research if researchers are not aware of or open about the economic-theoretical premises they are basing their study on. In this study, the unreflective adoption of certain economic-theoretical assumptions has led to a misperception by which widely-held beliefs about the consequences of central bank financing of government spending have been confused with material (that is, extra-discursive) power structures of the world economy. My aim in this study is to correct these misunderstandings and to clarify the role of the various external pressures states face in their economic policymaking.

Another objective of this study is to improve the emancipatory potential of critical Political Economy research. The obvious purpose of Marxist or otherwise critically-oriented BMPN scholars like Gill and Law, Streeck and their heirs has been to shed light on the hidden power structures of capitalist world economy and therefore to reveal the spurious nature of contemporary capitalist democracy. The unmasking of fuzzy power structures is a prerequisite for any action against such structures, but it is questionable whether the political consequences of BMPN scholarship have been predominantly emancipatory. The problem is that BMPN scholars also reify already deeply-rooted prejudices on the impotence of state-level economic policies which may also be politically discouraging. Since there are no global Keynesian or other non-neoliberal regulatory structures in place, the only alternative is the *creation* of new institutions, which might be much more difficult than to strive for change within an institutional setting that already exists[9].

A possible counter-argument might be based on the idea that only truthful narratives can be emancipatory. If the increased ability of bond markets to discipline government policy is true, the BMPN actually contributes to emancipatory purposes. However, if BMPN scholars' analysis is flawed, then their apparently critical narrative turns against itself as it spreads an overly unrealistic story that limits otherwise possible political alternatives.

The work reported in this study will contribute to the discussion of bond-market power by critically examining the foundations the above-described

[9] Wolfgang Streeck (2015, 230–235) is critical of a global strategy of transformation but recommends still alter-European schemes. Stephen Gill (2011, 268–299) in turn puts his faith in new global movements and global democratisation.

BMPN in Political Economy, and how realistic it is. The study focuses on the hidden assumptions that are essential to the narrative but rarely publicly stated.

I will start by asking what the concrete problems possibly emerging from too high public debt ratios are. It seems that there are two potential problems. First, higher public debt ratios might be connected to higher interest payments, which can be seen as a budgetary problem. Second, ever-growing public debt ratios might eventually lead to public sector insolvency.

The hidden assumptions become visible once we consider the option to surpass bond markets by relying on central bank financing of public sector deficits. This is especially crucial when we are speaking of monetarily sovereign states – or states with relatively strong monetary sovereignty, if we understand monetary sovereignty as a spectrum rather than a dichotomy. These states are defined by flexible exchange rates and the ability to issue their own currency and have most of their debt denominated in their own IOUs (see e.g. Wray 2012b). States that have relatively strong monetary sovereignty can finance all of their spending from their central bank if they so want. Therefore, they do not depend on bond markets to finance their spending.

It is also important to note that strong monetary sovereignty is not a characterisation that can be applied only to a handful of the more powerful states. While it is true that virtually all states of the Global North enjoy strong monetary sovereignty, the same goes also for the economically strongest states of the Global South, such as Brazil and Thailand[10].

However, this is a trivial point if central bank financing of government spending is depicted as irresponsible and harmful. Hence, the idea that governments are at the mercy of global bond markets is also in need of the assumption that central bank financing of public deficits is not a feasible policy option. The bulk of this dissertation will concentrate on tracing the roots of this assumption.

By looking at the history of economic thought, it will be suggested in this study that the assumption of the harmfulness of central bank financing is a natural part of closed-systems macroeconomics. With that concept I refer to all those macroeconomic theories that are based on deterministic geo-historical regularities. Their opposites are the open-systems theories emphasising the undetermined nature of the social sphere. Whereas in an open system conscious human action can be efficacious, it has no significant role in a closed system. In closed systems, societal development is driven by predetermined regularities that govern human capabilities and action.

Closed-systems macroeconomic theories emphasise the role of convergence mechanisms that force economic growth onto an exogenously determined growth path in the long run. Hence, closed-systems macroeconomics leaves little room for discretionary actions. If one tries to

[10] This issue is dealt more thoroughly in section 6.2.

manipulate a closed system with deliberate policies, the system can be driven towards general "welfare reductions" or a systemic crisis.

This is easily seen in the case of neoclassical economic theory – the most prominent form of closed-systems economics. One of the cornerstones of neoclassical macroeconomics has always been the neutral money axiom, which states that increases in the quantity of money can have virtually no beneficial real-economic effects in the long run. On this basis, neoclassical theory also assumes that central bank financing of government spending has the tendency to create disastrous hyperinflation (see e.g. Burda & Wyplosz 2013, 222). Thus, demand stimulus with the help of central bank finance is a non-option in the long run, because by then, the economy will have reached its "normal" or "natural" growth rate and all further stimulus measures will only worsen the situation[11].

However, neoclassicism is not the only form of closed-systems macroeconomics. Also, some heterodox theories imply automatic convergence towards "normal growth rates" or "normal rates of capacity utilisation" that generally cannot be exceeded in the long run without causing severe economic problems. Many Marxist scholars seem to have taken the classical assumptions about the supply-led nature of the macroeconomy for granted and they see only a small role for wage growth or discretionary-type demand stimulus measures in the long run (see e.g. Marglin 1984a & 1984b; Weisskopf et al. 1985; Shaikh 2016).

In this study I will show that the closed-systems approach is a highly problematic form of macroeconomic theorising. I will contrast the best-known closed-systems theories with post-Keynesian[12] economics that can be regarded as the most coherent and prominent form of open-systems economics. Post-Keynesians argue that there is no clear relationship between base money growth and the inflation rate (see e.g. Ahokas & Holappa 2014b; Lavoie 2014; Lavoie & Seccarreccia 2004). Thus, the effects of central bank financing of public sector deficits look different when analysed from a post-Keynesian viewpoint.

It will be further argued in this study that post-Keynesian economic theory gives a more realistic picture of the key processes of a modern monetary economy than neoclassicism or classical Marxism[13] which form the economic basis of the BMPN. Consequently, the key argument in this study is to assert that bond markets cannot discipline the actions of states with strong monetary

[11] For the definitions of normal and natural rates of growth, see chapter 4.

[12] Post-Keynesian economics is also often written without the hyphen. I have, however, decided to follow the most traditional way of writing that was used by the prominent post-Keynesian Joan Robinson already in the 1950s.

[13] In this study, "classical Marxism" refers to those forms of Marxian macroeconomic theory which rely on a closed-systems approach.

sovereignty. This naturally means that widely-held beliefs within Political Economy about the structural power of bond markets are mostly mistaken.

To make this argument, I will draw extensively from the so-called neo-chartalist[14] strand of post-Keynesian economics (see e.g. Wray 1998; 2012b). Neo-chartalism emphasises that monetarily sovereign states are not revenue-constrained as they spend in their own IOUs created by their own central banks. I will claim that the stories about the disciplinary powers of bond markets change if key insights of the neo-chartalist literature are adopted.

However, this study will not merely passively replicate neo-chartalist arguments but aims at further developing and partly surpassing them. The second key argument of the book is that although the BMPN is mostly erroneous, the claim that state-level economic policy space is limited by the discrepancy between territorial states and global markets, is correct in many ways[15].

This will be demonstrated by referring to another tendency of post-Keynesianism, that is, the theory of balance-of-payments-constrained growth. The central insight of balance-of-payments-constrained growth theory is that "no country can grow faster than that rate consistent with balance of payments equilibrium on current account, unless it can finance ever-growing deficits, which in general it cannot" (Thirlwall 2011, 321). This follows from the fact that most countries are in constant need of foreign exchange. Significant weakening of the exchange rate or the depletion of foreign exchange may either cause very difficult inflationary cycles or even destroy the basis of domestic manufacturing as necessary foreign commodities can no longer be obtained.

From the viewpoint of balance-of-payments-constrained growth theory, it can be argued that bond markets do not constrain state-level economic policy but the need to uphold long run current account balance forms a real limitation. This limitation prevents governments from concentrating only on full employment policies as large-scale demand management policies are likely to increase imports and thus weaken the current account[16]. So, governments can pursue full employment and maximum resource utilisation but only if the balanced current account condition is satisfied in a few years' period.

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[14] Neo-chartalism is now more often called "Modern Money Theory" or "Modern Monetary Theory". These expressions are rather misleading as they can easily be mixed up with the state-of-the-art mainstream theory. For these reasons, I will mostly use the word neo-chartalism, which was the expression used in the first key publications of the tradition (see e.g. Wray 1998).

[15] The discrepancy argument is presented for instance in Patomäki (2009).

[16] The connection between domestic demand growth and current account deterioration is likely to be indirect since productivity is shown to be positively correlated with GDP growth (see e.g. Lavoie 2018). Thus, increasing domestic demand may spur productivity growth, which then translates into increasing exports. The whole process hinders the current account deterioration caused by domestic and global growth differentials and provides more options for Keynesian policies.

To sum up, my aims in this study are the following:

1) to demonstrate that in Political Economy, there exists a fairly coherent tradition that emphasises the disciplinary power of global bond markets over states. The key storyline of this tradition has been described as the bond-market-power narrative.
2) to establish that the BMPN is dependent on closed-systems macroeconomics.
3) to prove that the closed-systems views behind the BMPN are crucially unrealistic and unfitting to a modern capitalist economy.
4) to demonstrate that states with strong monetary sovereignty can be free of bond markets' disciplinary actions if they so will.
5) to depict the real external limitations of state-level economic policymaking.

Although this study criticises literature that, at least to some extent, can be positioned under the rubric of critical research, it also locates itself in the critical tradition of social sciences and aims at increasing the possibilities for more emancipatory economic policies.

The significance of this study is not limited only to its emancipatory potential. It also aspires to transform Political Economy by revealing its weak points. It is argued in the dissertation that there are undeniably structures that limit state-level economic policymaking but the story told by the BMPN scholars is still mostly false. So, Political Economy should reorient itself away from the BMPN discourse and focus on those disciplinary mechanisms that actually exist.

This study also offers a novel way to integrate post-Keynesian economics and modern Political Economy. So far there have been few studies that have dealt with the shortcomings of Political Economy from a post-Keynesian viewpoint (or the other way around). The best example of such studies might be David Fields and Matías Vernengo's 2013 article which has many theoretical similarities with the research frame of this study. Fields and Vernengo's focus was on currencies, not on bond markets. It challenges the IPE scholarship discussing the possible decline of the US dollar from a chartalist perspective.

In the field of CPE, Lucio Baccaro and Jonas Pontusson (2016) criticise the varieties of capitalism approach for its neglect of post-Keynesian viewpoints and integrate Kaleckian growth models into CPE methodology while Till van Treeck (2009) challenges the financialisation strand of the Political Economy literature from a post-Keynesian viewpoint. However, these articles are not directly related to the capability of financial markets to discipline formally sovereign states.

Nevertheless, there have been numerous articles which combine some post-Keynesian elements with Political Economy without trying to make a more profound synthesis or to criticise the theoretical foundations of either approach (see e.g. Stockhammer 2016; Jäger & Springler 2015; Lockwood

2015; Nesvetailova 2015). These contributions have mushroomed after the global financial crisis and the euro crisis. Before the 2010s, it was rare to see any mentions of post-Keynesian thought in the leading Political Economy journals, such as the *Review of International Political Economy* and *New Political Economy*.

The attempt to not only draw some sporadic remarks and observations from heterodox economic thinking but to create a coherent theoretical framework that has its roots in both heterodox economics and Political Economy is possibly most clearly present in several contributions coming from the World Politics unit at the University of Helsinki. The senior scholars from the unit have a long history of connecting heterodox economic theories with Political Economy. For instance, Heikki Patomäki mixed critical economic theories with Political Economy theory long before the 2010s when such studies started to become more common (see e.g. Patomäki 2001; 2008). Similar elements can also be found from Teivo Teivainen's early work (see e.g. Teivainen 1997; 2002).

The study at hand has evolved as a product of my own studies, research and teaching in the Helsinki World Politics unit. Early on in my studies, I was strongly influenced by the attempts of the unit's scholars to overcome the disciplinary boundaries of Political Economy and economics. After I began teaching in the unit a decade ago, I decided to intensify the already existing development by increasing the role of post-Keynesianism and other heterodox theories in my courses[17]. The incorporation of post-Keynesianism and Political Economy has also been present in several of my publications (see e.g. 2014b; 2014c; 2016; Ahokas & Holappa 2011). However, this monograph is my longest and most thorough contribution in this field. At least to my knowledge, it is also the most comprehensive academic study conducted anywhere aiming to integrate post-Keynesian thought and modern Political Economy theory.

After this introduction, the study will begin with a detailed depiction of the BMPN and its history. The third chapter lays out the meta-theoretical framework of the study. The central aim of this book is to prove the unrealistic nature of the key assumptions of the BMPN, which requires an epistemological position that enables the assessment of the validity of different social theories. Social reality cannot be depicted as consisting only of narratives and "power struggles" if we are to argue that some narratives are more truthful than others. The focus of the chapter will therefore be on creating a meta-theoretical

[17] The development to integrate heterodox economic theories into Political Economy has been reinforced in the Helsinki World Politics unit recently. Young scholars – many of whom had participated in my courses and came into contact with post-Keynesian thought there – have now published their own contributions that have continued and improved the tendency (see e.g. Kotilainen 2016; Lainà 2018a; 2018b). The increasing amount of this type of research coming from the University of Helsinki might justify even speaking about a specific "Helsinki approach" or "Helsinki School".

foundation for the whole study based on critical realism. The chapter also deals with the political nature of social-scientific knowledge.

The fourth chapter describes the economic-theoretical underpinnings of the BMPN. It presents the closed-systems-type macroeconomic worldview that is necessary for the logicality of the BMPN.

The fifth chapter then turns to the macroeconomic shortcomings of the BMPN–closed systems-consensus. It challenges the barter-type reading of the economic system that forms the basis of neoclassical (and also partly Marxian) economics and offers alternative interpretations of state-level economic policy space by using post-Keynesian analysis. The chapter compares the credibility of closed-systems economic theories and post-Keynesian tradition, and how realistic they are. The fifth chapter of the study concludes with a discussion on the external limitations of state-level economic policymaking.

The sixth and final chapter moves on to discuss the possible political and scholarly implications of this book. The chapter also includes a discussion on how Keynesian policies can best be implemented in the state-level. This discussion is further expanded by presenting a global Keynesian institutional system based on the classic Keynes plan, which could serve as the basis for a cosmopolitan and global democratic demand management.

2 THE BOND-MARKET-POWER NARRATIVE

The purpose of this chapter is to demonstrate that there is a coherent storyline about the disciplinary power of bond markets in the Political Economy literature. This narrative suggests that the state-level economic policy space has diminished significantly in recent years as bond markets have gained more power.

However, before moving to discuss the BMPN, it is appropriate to say a few words about the research field covered by this study. Hence, the chapter will begin with a depiction of the historical development of modern Political Economy research.

2.1 EMERGENCE OF MODERN POLITICAL ECONOMY RESEARCH

This study traces the birth of the bond-market-power narrative from modern Political Economy literature. Political Economy, in this context, refers to a research tradition involving study of the political nature of those spheres of society that have usually been classified as “economic”. These spheres are sometimes divided between the privatised economic areas (e.g. corporations) and depoliticised but public economic areas (e.g. central banks and monetary policy) (see for instance Teivainen 2002). What is common to both areas is their general status as spheres in which democratic claims are typically not in force. Although democratic claims cannot usually penetrate these areas, decisions and actions taken in these spheres often have grave consequences for the autonomy and wellbeing of most citizens.

In the decades following the Second World War, most social sciences had absorbed the classical demarcation between “the political” and “the economic” so deeply that they tended to neglect the political nature of the areas usually labelled as economic. The development of economics into an extremely mathematised discipline trying to replicate natural sciences reinforced this development even more. Modern Political Economy research was born as a response to this very neglect.

Modern Political Economy has dual origins in political science and sociology and, on the other hand, in International Relations. Both traditions started to develop during the 1970s but the causes for their emergence differ. The birth of Comparative Political Economy can be seen as a consequence of overlooking the “political” in the “economic” whereas the emergence of International Political Economy related to the disregard of economic issues within the IR theory.

2.1.1 COMPARATIVE POLITICAL ECONOMY AND INTERNATIONAL POLITICAL ECONOMY

The rise of CPE is linked to the shifting intellectual environment around economic policy and economic theory. In the decades following the Second World War, economic policy was built around the so-called Phillips curve that expressed the inverse relationship between unemployment and inflation. Phillips curve appealed strongly to the policymakers of the time as it could serve as a justification for benignly ignoring unpopular inflation management policies (see e.g. Gordon 2008). Even though many policymakers adopted the orthodox argument that aggregate demand played no real-economic role in the long run, there was no reason to curb wage and investment growth at almost any point, as their only long run consequence was a rising inflation rate – something that was deemed as positive for the whole economy.

The theoretical basis of the Phillips curve was, however, very slim. Phillips curve theorists had virtually nothing to say when Milton Friedman (1968) brought forward his proposition that there was no Phillips curve in the long run as inflation expectations could be discounted to wage demands already made in advance. Thus, inflation provided nothing positive in the long run. Rather the opposite, high inflation rates were rarely stably increasing as they were often associated with high inflation variation that could make the whole economy very unstable.

The Friedmanian counter-revolution shifted the focus of policymakers from demand management to inflation control. However, it was soon realised that inflation control was not a mere fiscal or monetary policy question. The existing industrial relations between labour and capital and their organisation had important implications for price stability. The first wave of CPE, the so-called neo-corporatist literature, emerged at the turn of the 1970s and 1980s to study these relations (see e.g. Schmitter & Lehmbruch 1979; Goldthorpe 1984).

During the 1980s and 1990s, the neo-corporatist focus on wage bargaining institutions was increasingly considered to be outdated as the attention turned to the ability of different production systems to adopt new technologies and organisational forms. National economic performance was no longer interpreted to depend primarily on macroeconomic institutions but on the capability of firms to succeed in international competition. The social systems of production (SSP) approach especially highlighted the centrality of firms, corporate cultures, values, national systems of corporate finance and training of workers. SSP theorists assumed that these "institutions, organisations and social values tend to cohere with each other" and thus determine the ability of the corporate sector to regenerate and innovate (Hollingsworth 1998, 485).

In the 2000s, the neo-corporatist focuses on centralised institutions and the firm-level emphasis of SSP were integrated in a new varieties of capitalism (VoC) theory. The founders of the VoC approach, Peter Hall and David Soskice (2001), started from the collective-action problems all firms face. These problems relate to the organisation of wage bargaining, supply of cheap and skilful labour, access to finance, stable inter-firm relations (for instance in standard-setting and collaborative research) and the integration of the workers to the strategic aims of the corporations (Hall & Soskice 2001, 6–7).

In an unregulated ideal-typical social sphere, the companies must devote significant resources to overcome these collective-action problems whereas in the actually existing modes of capitalism, these problems are usually at least partly solved by the public sector. For example, the training of workers is often organised by the public sector which releases firms from painful educational tasks. On the other hand, public education, at least when it is organised ambitiously, can be very costly and the companies are forced to pay high taxes in exchange for the public provision of these services. The same dualism applies to qualitative regulations that states set for a wide range of of products and services.

On one hand, public regulations form a stable and equal supervisory framework for all companies. For instance, the firms do not have to negotiate business-wide standards together which could often be risky and time-and-money-consuming. On the other hand, these regulations limit the latitude of companies and may impede innovative ways to reorganise production.

Consequently, VoC theorists argue that there are different political solutions to firm-level collective-action problems. Liberal market economies have fewer public services, less regulation and lower tax rates whereas co-ordinated market economies have sizeable public sectors and heavier regulation and taxation. The literature argues that contrary to the usual assumptions, there is no reason to assume that liberal market economies are more competitive than co-ordinated market economies. The efficiency or competitiveness of diverse varieties of capitalism vary between issues and in historical time.

The VoC approach has become so popular that it is now often seen as the only vigorous and coherent school of thought in CPE. There are numerous criticisms of VoC theory but these contributions have not been able to set a competing credible research agenda or theoretical framework (Baccaro & Pontusson 2016, 179).

IPE has its roots in the transformations of the global economic governance in the 1970s. The Bretton Woods system (BWS) of fixed exchange rates and IMF-recommended capital controls collapsed in 1971 after the United States surprisingly decided to cancel the dollar's international gold convertibility. The dismantling of the system of multilateral capital controls facilitated the rise of global finance and increased financial market volatility (see e.g. Helleiner 1994; Duménil & Levy 2004). It also led to growing tensions in the Global North as many European countries demanded the immediate re-establishment of the BWS whereas the Nixon administration in the US was sceptical about the whole regulatory system (Leeson 2003).

Economist Richard Cooper had foreseen the consequences of a deregulated global economy even before the collapse of the BWS. In the *Economics of Interdependence* (1968), Cooper envisaged three broad consequences of the new global economy. Firstly, he rightly predicted that deregulation would increase economic instability. Secondly, he expected the new interdependence to hinder the achievement of different state-level political goals as external constraints could narrow down domestic policy space. Thirdly, he believed that interdependence could increase economic competition between states and thus lead to escalation in international economic relations.[18]

Cooper's arguments aroused the interest of young International Relations scholars Robert Keohane and Joseph Nye. Still at the turn of the 1960s and 1970s, IR was dominated by the realist paradigm that had viewed states as the only significant actors in the global system and assumed that issues of security and military power reigned in global politics. Keohane and Nye understood that traditional IR was unable to explain the emergence of new international economic power politics or the growing role of transnational actors like multinational corporations, global financial market investors or transnational non-governmental organisations (Cohen 2008, 16–43; 2009, 28–29).

Keohane and Nye began to tackle these questions in the edited volume *Transnational Relations and World Politics* (1972) but it was only *Power and Interdependence* (1977) that really laid the cornerstones of orthodox IPE. The latter book introduced the concept of complex interdependence, the main characteristics of which Benjamin J. Cohen (2008, 27) has defined as "multiple channels of communication, an absence of hierarchy among issues, and a diminished role for military force". The first of these refers to the increasing role of new international actors and organisations, whereas the other two relate to the growing importance of economic relations vis-à-vis traditional (military) power relations.

Keohane and Nye, however, did not intend to replace realist state-centrism with something completely different but merely to introduce complementary viewpoints into the IR orthodoxy (Cohen 2008, 30). Even though they highlighted the role of non-state actors, states were seen as the foundational architects and most significant actors of the global system. This still holds in the orthodox tradition of IPE: state policies are hardly ever described as reflecting the political actions and ambitions of transnational actor groups. It is often assumed that these groups have significant power resources, but they are rarely envisaged to be above states in the sense that their transnational group interests could override the power-political *raison d'état*.

The orthodox, or state-centric, tradition of IPE that ensued from Keohane and Nye's work has centred around two broad research aspirations. First, the ultimate goal of the tradition has been to explain "how, when, and why do countries choose to open themselves to transborder flows of goods and services, capital, and people" (Lake 2009, 221). This type of grand theorising has declined over the years as most scholars working within the orthodox approach have accepted the basic theoretical corpus of the state-centric school. In recent years, the attention has turned to studying how the international

[18] My interpretation of Cooper's arguments is based on Cohen (2008, 23).

economy affects the interests and actions of individuals, branches of industry, various political groupings and countries (ibid.).

The recent focus on the changing material conditions of different actors has also brought state-centric IPE nearer to CPE as the VoC approach comes very close to this type of research agenda (Blyth & Matthijs 2017, 206). While state-centric IPE is often a study of the effects of the international economic environment on different actors, VoC theorising usually focuses on the effects that national forms of capitalism have on various agents. Since different forms of regulating state-level capitalism are often seen as differing responses to globalisation, the difference between IPE and CPE narrows down to a mere different research tradition.

State-centric IPE and CPE also have common methodological grounds. Even though IPE has developed as a subfield of IR, its methodology is close to neoclassical economics – in both the ontological and methodological sense: All actors are assumed to be self-interested rational utility-maximisers who have clearly defined transitive interests and preferences. Usually only quantitative and mathematical methods are accepted, which is also the case in mainstream economics (Cohen 2008; 2010; Lake 2009, 224–225).

There is an implicit neoclassical influence in CPE, especially in the VoC tradition. As Lucio Baccaro and Jonas Pontusson (2016, 178) have argued, the whole VoC paradigm is indirectly linked to the anti-Keynesian trend that has dominated the economics profession from the 1980s onwards.

The VoC literature downplays the importance of aggregate demand and sets its focus on "supply-side institutions" – corporate finance systems, industrial relations regimes, vocational training systems and the like – in determining the sustainable ("non-inflation-accelerating") rate of unemployment". Also, tangible methods that are applied in VoC research, such as game theorising, are often borrowed from neoclassical economics. This is not surprising, since David Soskice, one of the two founders of the approach, is a well-known neoclassical economist himself.

However, the state-centric school of IPE is only one tradition within the discipline and mainly popular in the United States which is why Cohen (2008) has termed this tradition the "American school" of IPE. Even before Keohane and Nye's seminal contribution, IPE had been invented in the United Kingdom – but in a rather different form. Susan Strange, a journalist from the *Economist* and the *Observer* who had taken an IR lecturing position at the London School of Economics in 1943, had tried to integrate questions of economic power into IR theorising from the beginning of her academic career (Cohen 2008, 45–47). This culminated in her influential article "International Economics and International Relations: A Case for Mutual Neglect" (1970) which was a manifesto for a new IPE discipline.

What Strange had in mind was something very different from the orthodox perspectives of Keohane and Nye. She argued that state-centric IPE could capture only one level of power, namely, relational power. With relational power Strange (1986, 24) referred to "power of A to get B to do something they would not otherwise do". Nevertheless, she argued that what mainstream theory always missed was structural power, that is, those mechanisms that limit the options of different economic agents. For instance, if the policy elite of a state believes that state budgets must be balanced, the space for economic policymaking becomes significantly more limited than in a situation in which this belief has not achieved a hegemonic position. Thus, a particular knowledge structure has set conditions that in fact limit the scope of real political options.

Strange claimed that IPE should focus on both levels of power, which meant that the orthodox state-centric orientation was not enough. States were not always the primary actors in setting up different security, production, finance or knowledge structures. Quite often states might be mere vehicles used by sub-national or transnational groups aiming to fulfil their own political goals, so attention should be directed to these actors and questions relating to the distribution of economic power.

The problem was that Strange never developed a comprehensive theory that could compete with state-centric IPE. With the publication of "Social Forces, States and World Orders: Beyond International Relations Theory" in 1981, Robert W. Cox articulated a more thorough theory that was better able to tackle the questions raised by Strange. Cox's main contribution was to integrate Antonio Gramsci's political philosophy into IPE theory. While Strange never succeeded in establishing a coherent alternative to the state-centric orthodoxy of the discipline, Cox quickly gained several followers, most notably Stephen Gill and Kees van der Pijl (see e.g. Gill 2011; van der Pijl 1998), who were eager to create a strong competitor to the American school of IPE. Years of collaboration resulted in the creation of Neo-Gramscian[19] school which gained significant influence in Europe and Canada. There are numerous current critiques of and alternatives to the state-centric IPE orthodoxy but neo-Gramscianism can be seen as the only at least somewhat coherent competitor with clearly stated theoretical corpus.

Neo-Gramscianism has been built around Gramsci's concept of hegemony. The word "hegemony" is often used in mainstream IR theory too, but the Gramscian usage of the concept differs significantly from the traditional one:

[19] Neo-Gramscianism is also sometimes called transnational historical materialism.

> *Unlike conventional IR theory, which reduces hegemony to a single dimension of dominance based on the economic and military capabilities of states, a neo-Gramscian perspective developed by Cox broadens the domain of hegemony. It appears as an expression of broadly-based consent, manifested in the acceptance of ideas and supported by material resources and institutions, which is initially established by social forces occupying a leading role within a state, but is then projected outwards on a world scale.*
>
> *Bieler & Morton 2004, 87.*

Thus, neo-Gramscianism focuses on the distribution of power between various groupings and the reification of particular forms of economic power-sharing. Neo-Gramscians do not interpret global politics primarily as a struggle for power between different nation-states but as a clash between different social classes and transnational groups with ideological ambitions.

Forms of submission and military power play a notable role in the struggle over world order but the most efficient and the only long-lasting way to dominate the political arena is through consent and reification. Consent refers here to active acceptance of some forms of power-sharing while reification[20] – not so often discussed by neo-Gramnscians but still an important element of actual Gramscian theory – is an ideological process through which some political argument is presented in a technical and de-political manner. Continual reification of economic ideas leads to economism which refers to a situation in which the political nature of "economic" arguments is not appreciated in the public discussion (Teivainen 2002). In these situations, politically and academically contested ideas become part of the "common sense" – so obvious and self-evident that few people are able to question them.

The interest of neo-Gramscians is in the analysis of how production relations have been configured at the world level. In Marxist economic theory, which is usually accepted by neo-Gramscians, production relations determine which social forces are able to define how social relations are set up. Since part of the value extracted from the work of the labour is directed to the capital owners, the wageworkers never get paid for all the work they have done. This leads to a situation in which the capitalist class is able to exploit the whole surplus value and thus continuously maintain a high proportion of the income and significant levels of inequality. The capitalist class also owns the factors of production which enables it to define kinds of production and the conditions under which it is conducted. Thus, production relations determine how power is shared in a modern capitalist economic system to a great extent (See Marx 1867).

[20] The term reification was not used by Gramsci himself even though he referred to mechanisms that are often discussed under the concept of reification. The modern usage of the term was introduced by György Lukàcs in 1923.

Different world orders affect national variations of production relations. For instance, if the world economic system forces the government to retreat from several sectors of the economy that had previously been decommodified, it is quite likely that this type of world order would strengthen the position of capital vis-à-vis labour in national economies. Thus, for neo-Gramscians, world order is not only a concept that describes how the high politics of war and diplomacy is conducted between different states but, in addition to this, it is a concept that defines how the everyday lives of ordinary human beings are affected by the configurations of the world economy.

The status of neo-Gramscianism has clearly declined in recent years (see Kotilainen & Patomäki 2019). While the American school of IPE has more or less retained its original roots, its challengers have become clearly more fragmented. The setting was still clear at the beginning of the 2000s. On one hand, there was the positivist state-centric approach drawing its inspiration from neoclassical economics and aiming at objective or at least neutral analysis of international economic relations. On the other hand, there were the Marxist approaches, most notably neo-Gramscianism, highlighting the repressive nature of the world economy and the dominant ideology justifying and reifying the current world order. This is not the case anymore.

The rise of the so-called poststructural IPE has fragmented the heterodox side of the debate. Poststructural IPE can be understood as a collection of perspectives in the field of international political economy that emphasise the socially constructed nature of meanings, norms and other social institutions. Therefore, it challenges both the orthodox strand still clinging to the idea of state-centric analysis and its Marxist alternative that replaces states with social classes as the necessary starting point of the inquiry.

There is no "natural centre of analysis" and no overdetermining power relations for the poststructuralists (see e.g. de Goede 2003; Langley 2009). They often understand social reality as a linguistically constructed *understanding* which can be transformed in a variety of directions if enough ruptures appear in the prevailing knowledge structure.

The difference between neo-Gramscianism, which also emphasises knowledge production, is in a different understanding of social power. For the neo-Gramscians, the production of hegemony is necessarily tied to class struggle and the role of transformative intellectuals is emphasised. So, neo-Gramscians might believe that significant portions of the population do not understand the political underpinnings of the governing common sense but the "logic of capital" still stealthily favours those discourses that strengthen the position of the ruling classes. Usually, neo-Gramscians also claim that there are some sections of society – groups of intellectuals – who are able to understand the political nature of various reified discourses and thus actively direct knowledge production (see e.g. van der Pijl 1998; 1984; Gill 2011).

The same is not true for poststructuralists. Capital does not usually enjoy any type of a special status in poststructural theories. On the contrary, "capital" itself is understood to be one among several social constructions. It may be an especially powerful edifice but no more so than other influential discursive constructions – be it race, gender or any other naturalised social category (de Goede 2003; Langley 2009).

They also usually give less emphasis to the conscious knowledge production of various elite groups since key poststructural power theorists emphasise the "decentralized, incoherent and capillary-like" qualities of power (Langley 2009, 132). For many poststructuralists, societal power is the compilation of forces that brings about the prevailing forms of social order. Thus, power cannot be understood merely as a capability of some individuals or groups – it is never directly in anyone's control. It is based on various practices, institutions, traditions and other social structures: individuals are always socialised into different ways of acting and thinking by these structures. Thus, the sheer existence of certain practices and institutions forces human behaviour into particular modes without anyone's active will and conscious action.

The rise of poststructuralism, among other factors, has fragmented the field of non-orthodox IPE. Historical materialism is no longer the natural starting point for heterodox narratives as a multitude of forms of repression, power and control can be detected and no specific mechanism is given privilege over the others. However, this does not mean that Marxist IPE scholarship would have completely lost its status. Quite the contrary, it is still appropriate to say that different strands of Marxism form the largest alternative to state-centric IPE. The point is that the critical side is no longer strongly reduced to neo-Gramscianism or any single school of thought.

2.1.2 WHY FOCUS ON THESE TWO DISCIPLINES?

The concept "political economy" is used more widely than in just modern CPE and IPE literature. Political Economy was the concept used by the classics of economic research, Adam Smith, David Ricardo and the rest, to describe their own discipline in its infancy. The term is also now sometimes used by social scientists who want to analyse the political aspects of something that is usually deemed "economic". Thus, many books or papers including the concept political economy do not have anything to do with either CPE or IPE. Therefore, one could ask why I decided to limit my analysis to these two disciplines?

The main reason is that the motivation for making this study is my concern that orthodox[21] economic theory has become so pervasive that its worldview

[21] Throughout this study, I use the concept of orthodox economic theory to refer to pre-Keynesian economic thinking (that explained all unemployment as an expression of too high real wages) and its modern manifestations. Neoclassical economic theory can generally be understood as an example of orthodox thinking but some of its strands lead to more Keynesian policy conclusions. Some forms of classical Marxism also come close to orthodox macroeconomics even though their differences in microeconomic theory are huge. This is discussed more thoroughly in chapter 4.

and at times dubious assumptions limit our ability to understand the full range of political alternatives we possess. Revealing hidden political options is the task of all critical social science but the role of institutionally-based Political Economy research is of special importance since the discipline of economics is dominated by only one perspective and is therefore more likely to narrow down the scope of politics and democracy rather than to increase it. Consequently, the challenge for (or complement to) orthodox assumptions can stem only from some other systematically developed discipline that focuses on the core questions of economic research – such as production, trade, finance and employment. My view is that modern Political Economy (consisting of CPE and IPE) would be best-suited to fulfil this goal but to achieve it, it should be more aware of its own theoretical influences.

The role of eclectic social scientific studies that just use the concept "political economy" without connecting into any disciplinary tradition within Political Economy is probably miniscule in offering a systematic and permanent alternative for neoclassicism. That is why I have focused only on disciplines that have longstanding intellectual histories, well-known key debates, textbooks and other features that usually define a scientific discipline.

I am also suggesting that the neoclassical influence is transferred through mutual scholarly discussions and theoretical corpuses. When the same ideas are repeated over and over again by authoritative people, they become entrenched and learning them becomes a necessity for younger scholars. Therefore, the neoclassical influence could not be systematic and similarly pervasive without having common scholarly structures.

One could question whether it then makes sense to lump CPE and IPE together under the rubric of modern Political Economy research. After all, they have distinct histories and differing starting points, as I demonstrated in earlier sections, but the situation is quickly changing. At the moment, both CPE and IPE are partially parting from their original mother disciplines and slowly integrating into a common Political Economy discipline.

This can be seen in various ways. Firstly, many scholars have made the point that the boundaries between CPE and IPE have now become increasingly artificial (see e.g. Campbell 2009, 267; Phillips 2004; Weber 2001, 7). Secondly, this is also manifested in the disciplines' textbooks and handbooks that quite often draw heavily from their sister discipline (see e.g. Clift 2014; Blyth 2009). Thirdly, CPE and IPE studies are published in the same journals, most notably in *New Political Economy* and *Review of International Political Economy*. It is often difficult to divide articles published in these journals into CPE and IPE categories. The CPE and IPE discussions are heavily intertwined and quite disengaged from more general debates in IR or comparative political science. Fourthly, the first managing editor of *New Political Economy*, Anthony Payne[22] (2006), has pointed out that one of the core missions of the journal was to bridge the gap between CPE and IPE.

[22] Anthony Payne served as the managing editor from 1995 to 2005.

Hence, I am suggesting that we are currently witnessing the development of a novel Political Economy discipline that is based both in CPE and IPE. The purpose of this study is to analyse the historical role and influence of the BMPN within this discipline. The next section will concentrate on this very issue.

2.2 THE HISTORY OF THE BOND-MARKET-POWER NARRATIVE

The ability of global financial markets to discipline state-level policies has probably been the most studied theme in Political Economy since the 1990s. However, many analyses have been surprisingly vague about the exact disciplinary structures. It has not often been clear whether the analyst is writing about foreign exchange markets, stock markets, government bond markets or all of them (see e.g. Andrews 1994; Germain 1997; Cerny 1999).

Nevertheless, it can be argued that the government bond market has had a special role in Political Economy since, as Layna Mosley (2003, 17) has argued, "it provides a *most likely* location for the operation of financial market pressures". Government bond markets are special also in the sense that pressures stemming from foreign exchange markets can be tamed by implementing capital controls. However, it is often assumed that governments cannot escape bond market pressures so easily, since public sector deficits need to be financed somehow (see e.g. Streeck 2013a).

For whatever reason, the Political Economy literature concerning government bond markets seems to be both abundant and influential. Its importance can be seen in the attention given to the best-known political economist studying government bond markets, Wolfgang Streeck, and his latest books *Buying Time* (2013) and *How Will Capitalism End?* (2016). His books were not only widely covered in mainstream European media but *How Will Capitalism End?* was also selected as one of the best books of 2016 by the *Financial Times* (2016).

Government bond markets' influence on policymaking has been analysed in remarkably similar ways in various strands of Political Economy. The bond-market-power narrative usually begins from the observation that public sector deficits have soared from the 1980s onwards. This is most often associated with the states' weakened capacity to tax, which is connected to the increased international mobility of capital. Other causes, such as weakening growth rates, the ageing of the population and welfare state "maturation", are also sometimes mentioned (see e.g. Pierson 2002).

Soaring public sector deficits are then linked to increased power of government bond markets. Bond-market power is usually described to be structural in nature, that is, the operational logic of government bond markets sets conditions for state-level economic policies. It is assumed that the fear of government default together with the profit maximisation goal drive bond market investors' decisions. High government debt rates and deficits are then interpreted to be examples of default risk and they are supposed to lead to rising interest rates on government debt as investors start to demand higher risk premiums.

Consequently, the BMPN always assumes that governments must balance their budgets in the long run[23]. It is also often emphasised that governments cannot escape from this condition by borrowing from the central bank. When central bank financing of public sector deficits is discussed, it is almost always assumed to be highly inflationary or confidence-eroding and therefore not a realistic policy alternative.

Next I will provide examples and nodal points of BMPN scholarship, but before moving on to the actual literature, I want to make three important remarks. Firstly, my aim is not to argue that all Political Economy analyses of government bond-market power could be categorised under the BMPN headline. Some Political Economy studies have expressed reservations about the traditional narrative. For instance, Sandy Brian Hager (2016) draws continuously from neo-chartalist literature in his analysis of the connection between inequality and public debt ownership structures. Likewise, Tim Di Muzio and Richard Robbins (2015) also make similar references to neo-chartalism in their study about the historical entanglement of public debt and the growth imperative.

Thus, I am not claiming that BMPN would characterise all Political Economy scholarship about bond markets. This should of course be obvious, as neither social sciences nor any discipline studying open systems, can ever be monistic (see e.g. Bhaskar 1998; see also chapter 3 in this study). Hence, there is no uniformly-shared theoretical basis of Political Economy and therefore, no uniformly shared theory of government bond markets either. Nor is BMPN an all-encompassing and consciously built social theory. Rather, it is a set of claims and assumptions that are shared by a significant number of political economists studying the power of government bond markets. What makes it a particularly interesting and study-worthy perspective is its unique status: even though there are some contesting standpoints, it is still impossible to find any other similarly coherent and broadly shared narrative about bond markets in Political Economy.

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[23] The question whether there is any difference between the need to balance the government budget in the long run or balance the government debt rate to a pre-determined level depends on the assumed long-term effects of fiscal policy. If budget deficits cannot spur economic growth in the so-called long run, they are necessarily harmful and budget must be, consequently, balanced at some point in the future. However, if one assumes it is possible to influence the growth rate or raise the level of total production through active fiscal policy, it is also possible to build a scenario in which long-term budget deficits exist but the government debt rate is stable or even on a downward trajectory. However, in orthodox theory, Say's law is applied in the long run which means that fiscal policy cannot have any important positive long-term real-economic effects. (See Arestis & Sawyer 2009.)

Secondly, my presentation of the history of BMPN does not aspire to be exhaustive. BMPN-type analyses are so common in Political Economy that it would be pointless to try to capture all or even most of those texts. Thus, I have concentrated on particularly illustrative, important or topical studies. The point of my presentation is to give the reader a clear understanding of the amalgam of assumptions that is commonly repeated in Political Economy and that I have named the bond-market-power narrative.

Thirdly, there is also the question which scholars I classify as students of modern Political Economy. My selection criteria have been rather simple. I have only accepted studies from those scholars who define themselves as comparative political economists or international political economists, or who are defined as such by other political economists. All my examples are indisputable as the quoted researchers openly connect to either CPE or IPE or are otherwise part of the canon of Political Economy.

2.2.1 THE EARLY HISTORY OF THE BMPN

The first version of the BMPN can be found in Stephen Gill and David Law's classic article "Global Hegemony and the Structural Power of Capital" (1989) in which they made one of the first coherent attempts to describe the disciplinary powers of global finance. The BMPN is well formulated in Gill and Law's article:

> *Whereas a reduced willingness to invest for productive purposes usually comes about gradually, the supply of finance through the purchase of government bonds and bills may decline very rapidly. This might result in the government being unable to finance its current activity without resorting to monetary inflation.*
>
> *Gill & Law 1989, 481.*

After Gill and Law's more general depiction of the structural power of government bond markets, the attention moved to more concrete applications of the BMPN at the beginning of the 1990s. During those years was when the BMPN started to be associated with the end of the social democratic welfare model and Keynesian fiscal policies.

A prelude to the literature on the crisis of the welfare state can be found from Wolfgang Streeck and Philippe C. Schmitter (1991). Streeck and Schmitter explain that the United States is now the only country able to sustain significant public sector deficits and fiscal stimulus policies since it implemented harsh neoliberal policies that pleased the bond markets during the Reagan administration:

> *In the early 1980s, with effectively deregulated, worldwide integrated capital markets, the destruction of American trade unions paid off handsomely in that it gave the United States the "flexible" markets and*

> *the "confidence"' of financial investors required to underwrite an expansionist fiscal policy that has been ironically characterized as "Keynesianism in one country".*
>
> *From the perspective of other capitalist countries, that term would appear to have carried a particularly ominous connotation. As the French socialist government after 1981 was soon to find out under the watchful eyes of other political elites, the dynamics of the international political economy after the second oil shock were governed by the old Roman imperial maxim, quod licet Jovi non licet bovi. Keynesianism had ceased to be universally available; it had become limited not just to one, but to only one country. Being so much larger than everybody else and, as a consequence, so much less internationalized; having broken its unions; being still in control of the de facto world currency while no longer accepting the responsibilities of world banker; and for all these and other reasons being able to attract and maintain the confidence of what is euphemistically called "the financial market",' in spite of gigantic and growing deficits in its budget and foreign trade—the United States could effectively and successfully apply fiscal stimulus, whereas the others could not without their capital running away and holders of financial assets dropping their currencies at their doorsteps.*
>
> *Streeck and Schmitter 1991, 145. (Emphasis in the original.)*

Streeck and Schmitter's attention was still more on the organisation of labour-capital relations but the key author of International Political Economy, Susan Strange (1997, 190–191), shifted the focus more clearly on the welfare state retrenchment that ensued from the increasing disciplinary power of bond markets:

> *There is a fourth structural change that may in the long run be more important for the future of the whole capitalist system than any of the other three. It is the growing tendency of governments to finance their spending with borrowed money rather than with tax revenues. [...] By 1992, Japan's government shortfall between tax revenues and spending reached 45 per cent of GNP. By 1991, the US federal deficit amounted to 54 per cent of national GNP, and has for many years now been financed by the issue of government debt. But although the US deficit was larger in dollar terms than all others, as a proportion of national GNP it was exceeded by that of Belgium, for instance, or Denmark. The trend is so pervasive that even Taiwan, second only to Japan as the holder of the world's largest reserves of gold and foreign exchange, recently resorted to borrowing for current government expenditure in a big way.*
>
> *[...]*

The significance of this tendency to bond financing is clear enough. It means that all developed states are under pressure from public opinion to maintain a generous welfare system and to ensure an adequate infrastructure of transport, communications, energy supply, education and research. All these are becoming more and more costly to finance.

Paul Pierson, an authoritative comparative political economist, was even more outspoken in his analysis of the consequences of government indebtedness. He argued in several texts that Western governments were now facing an era of permanent austerity, which was mostly due to the rising public sector debt rates and deficits[24] (see e.g. Pierson 1994; 1996; 1998). Pierson emphasised especially that public indebtedness was not an institution-specific problem. So, the need to balance budgets was not a politically created pseudo-necessity but a condition that applies to all capitalist countries:

The large budget deficits of the past quarter-century mean that more fiscal resources are pre-committed. Governments have fewer revenues to use for current activities, because more must be allocated to cover interest payments. In extreme cases, governments such as Italy must run sizable surpluses in their primary budgets in order to keep debt/GDP ratios from worsening. It is worth emphasizing these implications of high debt burdens in part because in Europe the pressures for constraint which they generate will often be attributed to the Maastricht criteria associated with monetary union. Economic and monetary union (EMU) is likely to have considerable consequences, exacerbating and channelling pressures for fiscal retrenchment. Yet it is essential to realize that the broad constraint on government debt/GDP ratios, and the implications of rising interest payments, would exist in a world without EMU.

Pierson 1998, 548.

Pierson's views were echoed in numerous texts during the 1990s. For instance, Beth A. Simmons (1999, 64) wrote:

For the smaller open economies, integrated capital markets can also impact the ability to use fiscal policy to stimulate economic growth. Capital mobility forces governments to pay the going world rate to finance their borrowing.

[...]

But even under relatively low interest rates, capital mobility may make it more difficult for governments to manipulate the fiscal policy

[24] Pierson also notes that ideological factors have had role in welfare state retrenchment but his focus is clearly on indebtedness-related factors, especially in his later writings.

> *lever. International capital mobility makes accessible a much bigger pool from where to borrow, but holders of this capital may demand more stringent standards of macroeconomic performance than did captive domestic lenders.*

2.2.2 BMPN IN THE NEW MILLENNIUM

At the beginning of the new millennium, attention turned away from theorising the end of Keynesianism to verifying the key arguments of the BMPN. Layna Mosley's work was particularly instrumental in finding empirical justifications for the earlier armchair theorising (see Mosley 2002; 2003).

Mosley's work differs from the rest of BMPN scholarship by being more subtle, reserved and moderate. For example, she brought forward the point that the inability of the new eurozone governments to borrow from their central banks could increase their default risk (see Mosley 2003, 313–315). She also emphasised that bond-market power should not be exaggerated and despite its indisputable influence, governments still have room for manoeuvre. However, even Mosley (2002, 765) still argues that there is a general causal connection between government debt ratios and deficits and interest rates on government bonds:

> *[W]e can expect governments to consider the impact of changes in interest rates on debt financing costs. Increases in government bond rates generate increases in future government financing costs. When faced with such increases, a government can run a larger deficit or make cuts in other areas to maintain the same deficit. Deciding to run a larger deficit likely will produce another round of interest-rate increases, making this choice relatively unattractive.*

The early 2000s was also the heyday of the alter-globalisation movement with groups like Attac, which campaigned for the implementation of a currency transaction tax, and new political processes like the World Social Forum, the movement of movements in the alter-globalization scenery, gaining significant traction. Thus, there was both an increasing demand and a growing audience for research that discussed the disciplinary power of the bond market and its consequent threat to democracy. William K. Tabb's *Economic Governance in the Age of Globalization* (2004, 120) is an illustrative example of the BMPN scholarship at the beginning of the second millennium:

> *Market players become "a new class of stateless legislators"– the bond market seemingly more powerful than elected governments or the most brutal of dictators. All states must compete for credit ratings in the same manner as private market participants do.*

More mainstream political economists reiterated the same message but with more moderate and less polemic language. For instance, Jeffry A. Frieden, one of the most cited orthodox political economists, dedicated a significant part of his *Global Capitalism* (2006) book to describe the problems of increasing government indebtedness from the 1980s onwards.

Frieden argued that the deregulation of global finance had encouraged governments to run fiscal deficits for two reasons. Firstly, he assumed that governments were no longer willing to use monetary policy as their primary instrument of stabilisation. Frieden assumed that governments had generally begun to be averse to "inflationary" monetary policies after the high inflation periods of the 1970s. He also pointed out that many European governments had also lost their monetary policy independence as they tied their currencies to the German mark. All this forced governments to carry out stabilisation through fiscal rather than monetary policy. (See Frieden 2006, chapter 16, "Globalism" section.[25])

Secondly, Frieden also made the point that the globalisation of finance had made more "loanable funds" available to governments. Hence, governments could now borrow more without the pernicious effect of "crowding out" the domestic credit market. (Ibid.)

Even though Frieden saw logical reasons for increasing government deficits and debt ratios, he was very clear that eventually governments would have to balance their budgets and obey bond vigilantes' dictates:

> *Eventually the debt would have to be repaid. For a politician, however, eventually is a long time, certainly farther in the future than the next election. Nonetheless, as deficits rose, so did concern – especially in the financial community – that government borrowing was becoming a habit. Financial investors began to complain that continued deficits were unsustainable and to warn that governments needed to "put their houses in order." Governments that had spent great political capital regaining the confidence of investors by fighting inflation now faced new complaints about deficits.*
>
> *Frieden 2006, chapter 16, "Globalism" section.*

Frieden did not directly discuss why governments cannot bypass bond markets with central bank financing of fiscal deficits. However, his analysis was obviously inspired by a traditional quantity theory of money-type view [26]. This is manifested in Frieden's interpretation of the hyperinflation crisis of the Weimar Germany in the 1920s (see Frieden 2006, chapter 6, "Europe "Rebuilds" section). He explains how the German inflation crisis, alongside other inflation crises of the era, was caused solely by the governments' money

[25] The e-book version at my disposal did not include page numbers.

[26] For presentation and criticism of the quantity theory of money, see chapters 4 and 5 in this study.

printing policies. Even though Frieden discusses the German hyperinflation at length, he makes no clear connection with balance-of-payments constraints, distributional conflict or other factors that are usually associated with the Weimar inflation[27]. The only explaining factor seems to be "money printing". If one assumes that central bank financing of government spending tends to lead to the destruction of the "value of currencies", "disrupted economies" and threatens "the social fabric of nations", it is obviously not a serious policy alternative.

2.2.3 BMPN AFTER THE GLOBAL FINANCIAL CRISIS

After the global financial crisis of 2007–2009, the BMPN scholarship seemed to be halted for some years. The short re-emergence of Keynesianism ran counter to the BMPN but the outburst of the euro crisis in the spring of 2010 brought the narrative back to life.

Immediately after the beginning of the Greek crisis, many scholars were still very critical of the orthodox economic paradigm and long-standing austerity policies that were seen as key causes of the whole crisis. Still, even many critics of neoliberalism and austerity were willing to admit that governments had to obey the dictates of the bond markets to some extent, to avoid a fiscal crisis. Hugo Radice's (2011, 94) otherwise critical discussion of the submission to austerity is a case in point:

> *Now it is certainly the case that any single government which accumulates debts that are very high compared to those of other governments will find itself subject to special scrutiny by the bond markets, as the Greeks now know only too well, and as many Third World governments found out already back in the 1980s. We should of course also make allowance for the pernicious effects of speculators: for instance, the role of George Soros in Britain's 1992 crisis that forced it out of the European Union's Exchange Rate Mechanism, or the flight of "hot money" from East Asia in 1997. But a reasonable case can still be made that governments should, in normal times, avoid excessive reliance on borrowing, especially to fund current expenditure as opposed to capital investments.*

It was, however, only Wolfgang Streeck who fully revitalised the BMPN after the financial crisis. His theory about the end of democratic capitalism is classic BMPN theorising (see Streeck 2011; Streeck 2013a; Streeck 2013b; Streeck & Mertens 2013; Schäfer & Streeck 2013). The starting point of his theory – most thoroughly laid out in his book *Buying Time* (2013a) – is in the "crisis of the tax state", which refers to the Western welfare states' weakened taxation capacity due to tax competition and the rise of the anti-tax right-wing movements. Streeck combined the crisis of the tax state with Paul Pierson's

[27] For different explanations of the German hyperinflation of the 1920s see Vernengo (2006).

analysis about the structural factors increasing public sector deficits and debt rates: weakening growth rates, the ageing of the population and welfare state maturation (see Schäfer & Streeck 2013, 1–2). According to Streeck, these processes together would lead to the creation of a new state form, the debt state.

In the debt state, all central macroeconomic decisions are dictated by the *Marktvolk*, the global government-bond-market investors, and the role of the *Staatsvolk*, the citizenry, is reduced to deciding about secondary issues with little significance to the governance of the political economy. For Streeck, the emergence of the debt state means the end of democratic capitalism. The time when the direction of capitalist political economies was not only directed by market pressures but also by popular will is now finally over.

Streeck draws "stylized observations" from his analysis about the rise of the debt state. The first three of those[28] are of special interest from the viewpoint of the BMPN:

> *1) The rising indebtedness of the rich democracies has for some time been curtailing their effective sovereignty, by subjecting the policies of their governments to the discipline of financial markets.*
>
> *[...]*
>
> *2) The main aim of lenders to governments in their conflict with a state's citizens must be to ensure that, in the event of a crisis, their claims take precedence over those of the Staatsvolk – in other words, that debt service gets priority over public services. They can best achieve this by means of institutions such as a "debt ceiling", ideally enshrined in the constitution, which limit the sovereignty of voters and future governments over public finances. The creation of such institutions may be enforced through the threat of higher-risk premiums or rewarded with lower premiums.*
>
> *[...]*

[28] The remaining four conclusions are: austerity must be rationed moderately (so that its growth-diminishing effects are not excessive), *Marktvolk* and *Staatsvolk* consist of partly the same people, *Marktvolk* exercises its influence mostly through its ability to shift its financial investments to other sectors/countries, and the markets "may engage the services of the 'international community' to back up their claims on a debt state". (Streeck 2013a, 211–215.)

> *3) In the struggle for "market confidence", debt states must make visible efforts to show that they are always ready to fulfil their civil law contractual obligations. In times of crisis, confidence-building of this kind is most successful with resolute austerity measures against the national population, preferably involving the opposition parties and by legally enshrining permanent limits on spending.*
>
> *Streeck 2013a, 211–215*

Streeck also claims that the austere turn on economic policy is not just discursively produced. When I interviewed Streeck for the Finnish *Peruste* (2017) magazine, I asked him whether he was writing about a politically popular narrative or whether he thought that the limitations for state-level policymaking were real (i.e. materialistic). His answer was clear: "No, it's real. The short answer is: it's real".

Even though Streeck noticed that some states have a better capacity to resist bond market pressures than others, he still maintained that even monetarily sovereign states like Japan have to balance their budgets in the long run (Peruste 2017). He also hinted that even the United States cannot sustain its budget deficits indefinitely even though the US dollar could maintain its hegemonic position in the future too:

> *Still part of the public debt market would be in a situation where the Chinese would start selling the T-bond. Will they do it? One doesn't know. One hears they are already doing it. That would mean that things become real serious for the United States.*
>
> *(Peruste 2017).*[29]

It is also interesting to note that Streeck does not believe that government bond markets could be bypassed by resorting to central bank financing of public deficits. At least, he sees significant risks in implementing these types of policies[30]:

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[29] All quotations from the *Peruste* magazine interview have been taken directly from the original interview recording.

[30] In this respect, it is interesting to note that Streeck's words are used to praise the 2017 book *Reclaiming the State*, written by William Mitchell – one of the leading proponents of neo-chartalism – and Thomas Fazi. However, it seems that Streeck agrees more with Mitchell and Fazi's emphasis on state-level politics than with their economic analysis which clearly contradicts Streeck's own views.

> [T]*he problem* [with central bank financing of public spending] *is that a bank or a banking system loses confidence that debt will actually be serviced and repaid. Other banks hear this; they don't lend money to that bank anymore. Banks cease lending to each other. As a result, one or two or three banks are going bankrupt.*
>
> *Ibid.*

Streeck's analysis has been highly influential. In addition to the enthusing that *Buying Time* and his consequent contributions aroused from important publications like the *Financial Times*, many scholars have bought the Streeckian narrative without much reservation. A case in point is Bob Jessop (2016, 99–100) who repeats Streeck's storyline about the crisis of the tax state and the rise of the debt state in explicit terms:

> *Alongside its external and internal sovereignty and political legitimacy, the tax state must be able to adapt public finances, in their fiscal (revenue) and expenditure dimensions, to the demands of accumulation as well as to those of political legitimacy (O'Connor 1973; Théret 1992; Streeck 2014 [2013a[31]]). This limits the state's freedom of manoeuvre, as the state is under the permanent (and discoursively reinforced) threat of a strike by productive capital or bondholders. Where the tax state uses future taxing powers as security against current and new loans, the views of creditors and credit-rating agencies also matter. Indebted states, notably those with heavy external debts, may seek to negotiate cancellation or rescheduling. Unilateral action, even if possible, would further undermine credibility. This problem is compounded when the state wants to attract inward investment and spur local enterprise. Yet tax holidays, subsidies, and so on could threaten the immediate tax base and the state's legitimacy in the eyes of taxpayers. This reinforces capital's power over the state.*

Maybe the most important recent example of BMPN scholarship is Zsófia Barta's book *In the Red* which investigates why "do some [developed] countries delay fiscal adjustment dangerously long if others act upon fiscal challenges fairly swiftly" (Barta 2019, 2).

In a typical BMPN manner, Barta (2019, 2–3) clearly argues that governments have to avoid too large debt stocks in order to get the necessary funding from the government bond market:

> *Persistently and significantly growing debt causes economic problems. It constrains policy makers' ability to invest, deliver services, and address welfare needs as they arise. It exposes a country*

[31] I have added the reference to year 2013 since in other parts of the book, I have systematically referred to Wolfgang Streeck's *Buying Time* with the year 2013 which was when the German edition was published. It was translated into English the following year.

> *to unpredictable and uncontrollable developments on the financial markets, raising the spectre of a destabilizing debt crisis or even default. Finally, it foreshadows increasingly painful austerity measures in the future.*

However, Barta's study is interesting since she seems to use BMPN as a vehicle for arguing for Nordic-type extensive welfare state arrangements. The main argument of the book is that less polarised societies with universal public service and benefits systems are able to handle fiscal consolidation more smoothly as the bulk of the population is affected by the spending cuts and tax hikes. This is not the case in countries where public services are directed only for the most vulnerable members of the society. Hence, Barta's study seems to fall into the critical strand of BMPN scholarship as it uses the alleged necessity to balance the budget to justify extensive welfare state arrangements and low levels income inequality.

However, Barta's research frame becomes interesting when she begins to justify her premise that high levels of government debt are always damaging. Barta does admit that short-term debt accumulation might be justified but she claims that long-term fiscal deficits are always harmful for the economy. She invokes Thomas Sargent and Neil Wallace (1981), the famous monetarist[32] economists of the 1980s, and the new classical[33] economist Robert Barro (1979) in defending her original position (Barta 2019, 9). This is interesting since it clearly reveals the assumptions that are necessary for the economic-theoretical credibility of the BMPN.

In the case of Sargent and Wallace, the connection is obvious. Their point is that long-term public debt accumulation forces the central bank to finance the government as private demand for government bonds wanes sooner or later. According to Sargent and Wallace, this leads to the loss of central bank's money growth target and hence to accelerating inflation. So, Sargent and Wallace claim that central bank financing of fiscal deficits should be avoided if price stability is to be upheld[34] (see Sargent & Wallace 1981).

In the case of Barro, things are a little more complicated but still quite evident. Barro's 1979 study is a follow-up to Barro's classical 1974 article "Are Government Bonds Net Wealth?" in which he introduced the concept of Ricardian equivalence. It refers to the assumption that even the short-term effectiveness of fiscal policy is limited. This is due to the rational expectations of the public which enable perfect foresight of future "necessary" government policies. The crux of the argument is that budget deficits might not stimulate

[32] See section 4.2.3 for discussion on monetarism.

[33] New classical economics is often defined as the most orthodox form of mainstream economics. It gives special importance to rational expectations.

[34] Sargent and Wallace's argument has several problems which should become clear to the reader in chapter 5 at the latest. Suffice to say, at this point, is that the whole idea of a money growth targeting central banks is fallacious.

aggregate demand even in the short run if private agents expect the deficits to be paid back by future tax hikes. In a "Ricardian" world, private agents would already have taken into consideration future tax increases and, thus, abstain from spending more.

The Ricardian equivalence argument necessarily requires the supposition that the economy is running at full employment and maximum capacity in the long run. Otherwise there is no reason to expect tax increases in the future as budget deficits might be needed to counter private agents' high willingness to save. However, if we assume the absence of involuntary unemployment in the long run, at the same time we are inevitably assuming long run neutrality of money as demand stimulation cannot improve the level of employment. The obvious corollary is that central bank financing of government debt would also be detrimental in the long run.[35]

Consequently, Barta's study is a typical example of BMPN theorising and illustrates well the hidden assumptions of BMPN research. The interesting element in Barta's book are the explicit references to the most orthodox forms of economic theory. It shows how even more critically oriented BMPN scholarship is dependent on stringent economic-theoretical premises.

Another important recent BMPN-based study is Jerome Roos's extensive book *Why Not Default? The Political Economy of Sovereign Debt* (2019). Roos's study tries to analyse why governments usually prefer to impose harsh austerity measures rather than default on their debt. The whole starting point of the study illustrates some of the most typical hidden assumptions of BMPN scholarship: governments can finance their spending only by collecting enough tax revenues, selling bonds to the private sector or relying on state-owned firms. Central bank financing of government spending is hardly mentioned in the book, but when it is mentioned, it is associated with runaway inflation:

> [James] *O'Connor was one of the few Marxist state theorists to appreciate the significance of the seemingly banal observation that – barring inflationary money creation or the outright looting of colonial territories – the modern capitalist state can only sustainably finance itself in three ways: through the operation of state-owned enterprises, through taxation, and through public borrowing.*
>
> *Roos (2019, 56–67).*

The natural consequence of Roos's premises is that government fiscal policy is disciplined harshly by government bond markets:

> *The first enforcement mechanism – market discipline – is a product of private creditors' capacity to inflict highly damaging spillover costs on a debtor's economy by withholding further credit and investment in the event of noncompliance. I use the term "market discipline" in a*

[35] These arguments are elaborated more thoroughly in chapters 4 and 5.

> *deliberately broad sense here, referring to any market-based form of pressure exerted on policymakers through the aggregate economic processes of buying and selling, investing and divesting, or lending and not-lending. As such, manifestations of market discipline on sovereign borrowers can include anything from international capital flight and the dumping of government bonds by foreign investors to the curtailment of commercial bank lending.*
>
> *Roos (2019, 71).*

Roos's storyline, however, suffers from several inexplicabilities and weaknesses as do most BMPN-based Political Economy studies. Firstly, monetarily sovereign governments are not separated from non-sovereigns. Hence, it seems to be assumed that all governments are disciplined by the bond markets in a somewhat similar manner.

Secondly, it is not clear why monetarily sovereign governments should ever consider the option of default. As will be explained later, there is rarely any pressure on the bond yields of monetarily sovereign governments. If such pressures were to emerge, the central bank could alleviate any such pressures with unilateral bond-buying operations as we have witnessed several times in different parts of the world after the global financial crisis.

Thirdly, Roos's whole narrative, as with BMPN scholarship more generally, relies on the assumption that central bank financing of fiscal deficits is seriously inflationary. This is somewhat surprising as the very assumption is mentioned only *en passant* in the study[36]. However, it is not completely exceptional as many other studies discussing the disciplinary power of government bond markets do not even make the passing remark.

Analysis of the history of the bond-market-power narrative reveals that a remarkably similar storyline about the bond market's disciplinary power has been presented repeatedly for almost 30 years. Despite its unwavering popularity, the BMPN's economic-theoretical foundations are shaky. I will turn to discuss the underlying economic-theoretical assumptions of the BMPN in chapter four.

2.3 CONCLUSIONS

As was demonstrated in this chapter, there is a remarkably uniform storyline about the structural power of government bond markets in much of the Political Economy literature. This narrative is based on the following key assumptions:

[36] This is puzzling because Roos discusses the bond-buying operations of the ECB when analysing the Greek crisis (see Roos 2019, 247–248). So, he seems to be aware of the option to finance government spending through the central bank but this has almost no influence on his general analysis.

1) All governments must avoid too high debt ratios in the long run, or suffer from the disciplinary actions of the bond market actors.
2) The need to avoid high government debt ratios means that governments often must impose restrictive economic policies.
3) Bond market agents' disciplinary actions can either mean demanding higher interest rates from government bonds or completely abstaining from buying the bonds of a particular government.
4) The disciplinary power of government bond markets cannot be bypassed by resorting to central bank financing of public sector deficits, since this will cause either hyperinflation or the erosion of the confidence felt towards the state currency or, in the worst case, both.

The first two assumptions are almost always explicitly stated. The third assumption merely reflects the possible power resources the bond market players have. It is so obvious that bond markets can discipline governments only by declining to buy their bonds or by demanding higher interest rates that this assumption is sometimes only vaguely discussed or ignored.

The fourth assumption is the most complicated one. Even though some scholars directly write about "monetary inflation" or the erosion of trust, many researchers overlook the whole issue. All theories are also based on some hidden assumptions; assumptions that are not explicitly stated but are still necessary for the inner logicality of the original argument (see e.g. Slife & Williams 1995).

When not explicitly stated, the fourth assumption is a typical example of a hidden assumption. If we claim that (A) bond markets discipline governments' economic policies and know that (B) bond markets can be bypassed by using central bank financing of government spending instead of relying on private markets to provide the funding, then in order to claim (A), we have to assume that the consequences of resorting to central bank financing are at least as negative as being submitted to the authority of government bond markets. Since the only mechanisms presented in the BMPN literature or in academic economics suggesting how central bank financing of government spending is supposed to be harmful refer to accelerating inflation rates and/or the erosion of trust on the states' currency, it is fair to assume that the BMPN almost always includes either a passive or active acceptance of the fourth assumption.

What is also important to note is that BMPN theory never associates the fear of government bond market punishment with hegemonic belief systems[37].

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[37] This is especially surprising from the viewpoint of neo-Gramscian scholars like Stephen Gill and David Law who often write about consent and hegemony. This, however, reflects the not fully adequate usage of the term "hegemony" even in neo-Gramscian scholarship. In neo-Gramscian literature, the focus is often on consent to a certain power structure that is understood and identified by the general public whereas Gramsci (1979) himself wrote especially about cultural hegemony which refers to the "naturalisation" of the ideas of the ruling groups. Ideas that are seen as self-evident are not often even consciously accepted but passively socialised into.

Another version of the BMPN might argue that bond markets can discipline governments' economic policies because we have accepted the notion that central bank financing of governments spending is harmful. This kind of an argument would be based on ideational causal mechanisms.

The literature that is characterised by the BMPN, however, never argues that the disciplinary power of government bond markets would primarily depend on ideational factors. Quite the contrary, this literature describes the structural power of government bond markets as an objective material condition that limits the bundle of real political alternatives.

Layna Mosley seems to be the only central BMPN scholar who, when asked why she had disregarded the possibility of central bank financing in her book about bond markets (see Mosley 2003), reverts to the performative[38] role of economic ideas:

> *Certainly, governments are more or less constrained/influenced by bond investors' assessments when they can, for one reason or another, avoid using those markets (avoid issuing debt). There are various pathways through which this might happen — some governments are better able to extract from their own citizens and firms (via taxation); others can draw on natural resource revenues; and still others may simple* [sic] *have less demand/desire to spend (and therefore, they don't need to finance deficits via borrowing). And, yes, governments could certainly print money (assuming they issue their own currency) to finance deficits and debt. For whatever reason, though, most governments have eschewed this strategy in recent decades, preferring instead to pursue low inflation policies, and (often) to make their central banks more independent from elected officials. Although there's not particularly strong evidence that modest levels of inflation (vs. hyperinflation) are detrimental to growth, this has become the received wisdom — so while it may not be terribly detrimental for governments to rely on printing money to fund deficits, the current (and last few decades') ideational climate makes it difficult for governments to pursue.*
>
> *[…]*

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[38] The performativity of academic ideas refers to a thesis suggesting that they "contribute toward enacting the realities they construct" (Callon 2007, 316; for the performativity of economics see also other articles in MacKenzie et al. 2007).

> *I don't necessarily assume that governments can't finance in other ways (including CB* [central bank] *financing, but also assuming resource revenues or bank borrowing or official finance). I was interested in the set of governments that had — for whatever reason — selected financing via bond markets (so there's a set of decisions prior to that, about issuing bonds as a means of financing, which I didn't explore).*
>
> *(Mosley 2018).*

The citation is from Mosley's answers to my e-mail questions which I sent to a few key BMPN theorists in order to get more exact understanding of their way of thinking[39]. Her insistence that she was merely studying bond-market power in those countries that had decided to rely on bond financing for some unspecified, possibly ideational, reason is not well-supported by the empirical evidence.

For instance, she never mentions ideational factors in this manner in her book. On the contrary, her depiction of financial market–government relations suggests another interpretation. She presents a figure[40] in which financial market actors' evaluations begin the feedback process. In the next stage, bond market investors make use of the evaluations in their interest rate premium demands. In the third stage, governments react by either maintaining or changing policies. If governments maintain old policies that are opposed by financial markets, they have to pay an interest rate premium. Ideational factors have no role in this narrative. It is never mentioned that this scheme applies only to those monetarily sovereign governments that do not accept central bank financing for ideational factors (See Mosley 2003, 14–16).

Still, I have no reason to believe that Mosley would not have understood the crucial role of the possibility of central bank financing of government spending. Her or any other scholar's level of understanding is not, however, under scrutiny here. What is more important is the description of the actual utterances of key BMPN theorists.

In the end, Mosley has participated in the reproduction of a narrative suggesting that governments are disciplined by global bond markets and their policy space is thus limited. The role of ideational factors is non-existent in her public narrative.[41] The reason why Mosley has neglected ideational factors in her academic work is interesting but not crucial from this study's viewpoint.

[39] The other researchers were Zsofia Barta, Ben Clift, Stephen Gill & David Law, Paul Pierson and William K. Tabb. I received answers from all scholars except Barta, Clift and Pierson. Their answers are attached to Appendix 1 in their entirety.

[40] This figure is attached to Appendix 2.

[41] The same remarks apply to William K. Tabb (2017) who also pointed out in my e-mail interview that he too believes that governments can finance their spending by "currency issue". However, I have not found publications where he would have clearly stated this.

What is more important is the fact that Mosley's public academic work has not included many hints about governments' opportunities to bypass bond markets[42]. On the contrary, there are several explicit passages in which she depicts bond markets as entities that have direct disciplinary power over formally sovereign governments.

However, it is not my intention to be especially critical of Mosley's work. Her work is considerably more nuanced than most Political Economy research concerning bond markets. Mosley has quite rightly earned her place as the leading student of government bond market behaviour. Nonetheless, for the very reason that Mosley is continuously cited in BMPN scholarship – in much of what is significantly less balanced than her work –, Mosley's contributions cannot be separated from the BMPN tradition.

I will argue that the BMPN has weak economic-theoretical foundations and it therefore gives a misleading picture of the power of government bond markets. The weaknesses relate to the closed-systems foundations of the narrative as will be carefully demonstrated in the fourth chapter of the book. However, the attempt to argue that the BMPN does not merely give a "one-sided" view of key economic mechanisms, but also a clearly erroneous view assumes that there is such a thing as extra-discursive social reality and that the explanatory potential of different social theories can be compared. I will next deal with these issues in more detail.

[42] There is one important exception to this in Mosley's work. She briefly mentions that the establishment of the European Economic and Monetary Union (EMU) eliminates governments' opportunities to finance their spending by running their "printing presses". Mosley even goes on to argue that the abandonment of monetary sovereignty returns the default risk for the European states joining the EMU. (See Mosley 2003, 313–314.) This is an exceptionally prescient analysis as her book was written in early 2000s –ten years before the eruption of the euro crisis and long before the relevance of monetary sovereignty began to be highlighted by mainstream economists too.

The short discussion about the consequences of states joining the EMU is, however, disconnected from Mosley's wider analysis. It is not revisited in other parts of the book and the possibility to finance deficits from the central bank is not discussed even in the context of financial-market-pressure insulation.

3 META-THEORETICAL FOUNDATIONS

Ferdinand de Saussure's linguistic studies at the turn of the 20th century shook the fields of humanities and social sciences as he claimed that our understanding of social reality is always and necessarily linguistically constructed. He argued that our interpretation of the reality is constructed through our vocabulary: things and objects get their social status only after we signify them with an arbitrarily chosen word (See de Saussure 1916).

On the surface, words might look like mere onomatopoeic representations of tangible objects whose functions and connections to other objects are more or less obvious to us from real experience. Many words, however, signify abstract things that have no reference to the material world. Words such as "intelligence", "conservative" or "feminism" do not have any physical-world referents. Thus, the whole idea of "intelligence" or "conservatism" can be established only after we create a word that categorises different phenomena under those words. Things like anti-gay attitudes, hostility to immigration or tax cuts for the rich would probably not be lumped together in our minds if the concept of conservatism[43] did not exist. All concepts include some phenomena and exclude others, thus socialising us into thinking that there is some natural family resemblance between some things and clear boundaries between others (Wittgenstein 1953).

De Saussure claimed that once a word is attached to the thing it refers to, their mutual connection becomes fixed. This aspect of de Saussure's theory was subjected to criticism in the 1960s and 1970s when poststructuralist philosophers[44] began to emphasise the changing meanings and connotations of words. They claimed that de Saussure was right with his basic ideas about the linguistic nature of social reality but that his theory lacked a profound understanding of the social nature of the signification process where a word becomes attached to a concept (Burr 2015, 61–62).

Poststructuralists claimed that no one can determine new words for the rest of mankind but that the meaning and boundaries of words are constantly contested. For instance, the word "populism" may refer to a political orientation emphasising the asymmetrical conflict between the powerful elite and the weak majority, as it is often presented in the academic literature, or it may as well refer to a style of politics that disregards the importance of science as is often presented in the media. Thus, there is no fixed meaning of populism and different actors can attach various meanings and connotations to the word.

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43 Conservatism here refers to the typical American usage of the term which combines social conservatism into right-wing economic policies.

44 See e.g. Derrida (1967).

Perspectives that are close to poststructuralism are also often called constructivism or social constructionism when scholars want to highlight the social power relations behind the linguistic struggles (see e.g. Potter 2004). The case of the "populism" concept offers an enlightening example of these linguistic power struggles: Defining populism as a set of unscientific and primitive ideas effectively reduces the legitimacy of any actor who is framed as a populist – at least among the more educated part of the population. When populism is defined as an asymmetric conflict, no such delegitimating takes place and populist politicians are automatically presented in a more neutral light.

A key poststructuralist argument is thus that social reality is linguistically constructed: the meanings that we (often) unconsciously attach to different words are socially constructed and our understanding of the world depends on the prevailing discourses. This does not mean that poststructuralists would usually deny the existence of "material" reality as it is sometimes misleadingly argued[45] (Burr 2015, 93–120). They are merely saying that we can make claims about reality only through socially shared discourses that are always shaped by power struggles. Consequently, we have no way to see reality in its "pure" non-discursive form. From a poststructuralist perspective, reality is necessarily discursively transmitted.

Even though few poststructuralists would deny the existence of reality, they usually claim that the truthfulness – that is, validity – of different theories cannot be judged since we have no way of seeing the reality regardless of its existence. For instance, this is the position taken in Vivien Burr's (2015, 177–178) influential and often cited textbook *Social Constructionism*. If we accept this position, it is impossible to make claims about the falsity of any narrative.

Thus, my aspiration to prove the inaccuracy of the bond-market-power narrative would be futile from a poststructuralist or constructionist perspective. I could only point out how the acceptance of the BMPN could benefit some groups and disadvantage others. The emancipatory potential of this type of research is rather limited as it can often be bypassed by agreeing with the "unfortunate" political consequences but at the same time insisting on the necessity of the political choices taken (referring in my case to the austerity policies that are the logical corollary to the BMPN). So, effective emancipatory research also requires the making of knowledge claims and the objective of trying to corroborate theories.

Consequently, in my study I reject the poststructuralist position that we cannot make references to the truthfulness of social-scientific theories. I have held this position even though I have drawn heavily from the poststructuralist and constructionist literature when discussing the hegemonisation of the BMPN and its political repercussions.

[45] Dennett (2000) is an example of a straw man-type criticism of "postmodernism". Dennett uses the word postmodernism but refers to authors that could also be called poststructuralists.

I argue that even though we can perceive social reality only through socially constructed discourses, it does not mean that we cannot judge the validity of different knowledge claims. This has indeed been the position of the so-called critical realists already for some decades.

3.1 CRITICAL REALISM, EMANCIPATION AND KNOWLEDGE CLAIMS

Poststructuralism started to gain currency among the more critically oriented and left-leaning social scientists at the turn of the 1970s. Many scholars were unhappy with traditional Marxism as they felt that it concentrated on only one type of subordination – economic exploitation – and left questions of race, gender and sexuality largely untouched. Numerous scholars claimed that if Marxism could deal with only economic suppression, it should be replaced with theories that are better suited to analyse questions of identity and culture. Poststructuralism enabled pointing out how linguistic conventions continuously reproduced the dominance of the already privileged groups and suppressed the voices of the repressed (see e.g. Butler 1990; Hall 1997).

However, the rise of poststructuralism was not only about the omissions of Marxian social theory. At the same time, Marxist and other critically-oriented economists were being driven out of the economics discipline as the best-known journals began to refuse to accept articles that were based on non-neoclassical theories and methods (King 2002, 79–138). Thus, it was only natural that the zeitgeist from the late 1960s to the late 1970s lured critical scholars into concentrating more on questions of cultural hegemony and abuses of power within academia than on studying real causal mechanisms[46] in the spheres of production, trade and finance.

Some scholars were worried that the linguistic turn within social theory would weaken its emancipatory potential. Roy Bhaskar (1986; 1989) highlighted that social sciences and social theory must be able to reveal causal relationships between different factors in order to be emancipatory. Before Bhaskar, it was not entirely clear what the connection between critical social science and causal explanations was. Critical social science was usually defined as a form of research that aims to emancipate suppressed groups and thus to help those groups to gain autonomous control of their lives. Such studies could concentrate on "obvious" problems that some groups faced (e.g. starvation, poverty, involuntary unemployment) or false consciousness, which is a concept referring to generally accepted but at least partially untrue beliefs that can hamper anyone's abilities to advance her interests or values.

[46] The best-known critics of the scientific process, Thomas Kuhn (1962) and Paul Feyerabend (1975), have become key authorities in the poststructuralist literature. The concept of hegemony has been introduced to the tradition especially by Stuart Hall and Ernesto Laclau and Chantal Mouffe (1985).

Critical realists argued that the ability to understand causal processes is emancipatory even though improved understanding of the underlying causal structures of the social world might make some political goals look more difficult to achieve. The point is that all understanding of the key mechanisms influencing the lives of individuals helps them to make decisions that will foster their abilities to satisfy their wants and needs in the best possible way (See e.g. Hartwig 2007a, 296).

In the original critical social-scientific literature, it was uncommon to suggest political alternatives to improve the state of affairs. It was often thought that mere criticism was enough and that suggesting alternatives was not the task of the researcher. Indeed, it was usually assumed that presenting any political reforms or utopias would lead the researcher to the muddy waters of values. Since there is no way of determining "right" values, social research would begin to approach some ideological proclamations and lose its analytic edge (Sayer 2000, 158–169).

The linguistic turn made things even more complicated since now many scholars began to suggest that questions of causation were outside the domain of social science. Since everything was language-transmitted, and linguistic structures are constantly changing and unintelligible from different standpoints, it is futile to try to find causal relationships. What then follows is that if we are not able to explain the occurrence of social problems, then we have a limited capacity to offer political alternatives. We are then left with "revealing" and "unmasking" social structures that are not penetrable with common sense.

Bhaskar laid the foundation for a counterreaction to Marxian and poststructuralist versions of critical social-scientific research in his seminal books *A Realist Theory of Science* (1975), *The Possibility of Naturalism* (1979), *Scientific Realism and Human Emancipation* (1986) and *Reclaiming Reality* (1989). Those books created the basis of what he first termed transcendental realism and later on critical realism.

Bhaskar and his followers positioned themselves in the tradition of critical social science but wanted to improve its ontological and methodological foundations. A central tenet of critical-realist theory is the argument that without the ability to offer political alternatives, the emancipatory capability of critical research is quite low. The unmasking of repressive social structures becomes meaningful only if the researcher can demonstrate that those structures can be replaced without causing even more harm to the studied group (Sayer 2000, 161).

Thus, profoundly emancipatory research is possible only if we can explain causal relationships and use that knowledge to build political alternatives[47].

[47] Critical realists are aware that there are also other problems in conducting critical social research. Andrew Sayer (2000, 161–165) has written on the need to clarify the standpoints of the research. It is not enough to define a critical research as academic work trying to improve the living conditions of some

This leads us to the epistemological and methodological positions of critical realism. Critical realists agree with an epistemic-relativist position that is close to the views of the poststructuralists, namely, that the knowledge of reality "is always relative to theory" (Cruickshank 2012, 77–78). Critical realists, however, part with poststructuralism when it comes to judgemental relativism, which is the view that the truthfulness of different knowledge claims cannot be tested or otherwise scientifically judged.

From a poststructuralist or constructionist perspective, judgemental relativism is a necessary corollary to epistemic relativism: if we can understand the reality only through certain discourses, we do not have the means to internalise other discourses and their meaning systems or their connotations and metaphors. We cannot see the same things or phenomena in the acts of signification[48] as those who have internalised different discourses or theoretical traditions. A related form of criticism would emphasise the continuously changing meaning of words which makes every academic theory geo-historically specific. It can, thus, be argued that researchers have no way of testing theories that are not similarly historically situated.

Critical realists usually respond to these arguments by pointing out that it is an exaggeration to claim that the meaning of words is constantly changing or agreed on only by a narrow group of people. For example, Andrew Sayer (2000, 35–40) has argued that numerous words have a relatively stable meaning. Sayer discusses the stability of meanings through various examples, but I have interpreted his two key claims to be that:

1) We are usually able to understand that certain expressions can have various meanings and interpretations. Thus, we are not imprisoned to the one meaning system we are using but understand the multiplicity of meaning systems and communicate accordingly.
2) We are then usually able to indicate which of the numerous possible ways of interpretation should apply to our utterance.

However, this does not mean that critical realists would deny the importance of social constructionism. On the contrary, critical realism is built around the ontology of open systems. It was founded as part of the postpositivist wave of the 1970s and its main target of criticism has always been positivism.

Critical realists argue that the main weakness of positivist methodology is that it tries to find geo-historical regularities from the social world and thus ignores the fundamentally open nature of social systems. In the social world, "laws" and "regularities" apply only in special circumstances and it is a futile task for the researcher to try to find universally applicable causal relationships.

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group. For instance, tt is easy to envision a situation in which industrialisation could alleviate poverty but at the same time increase pollution. Thus, the standpoint of the researcher must be well-clarified if he or she is not to offer "solutions" that cause new problems for the already repressed.

[48] In the poststructuralist literature, signification refers to the process where signifiers (words) are attached to the signified (concepts).

What researchers then should do, from a critical-realist viewpoint, is to try to elucidate and observe causal complexes. Causal complexes can be understood as descriptions of all factors "capable of producing outcomes" (Patomäki, 2003, 78). Thus, even if we observe that factor A has always caused X in a given context during some period of time, it does not mean that X is determined by A. X might be caused by factors B and C in a different context while A might not be sufficient to cause X under these different circumstances. Causal complexes, hence, help us to understand all potentially efficacious causal relationships and their mutual connections.

Consequently, a good critical realist should always consider the social construction of meanings and how this construction enables and narrows down our sociological imagination when creating a causal complex. This means that hegemonic interpretations, connotations and metaphors are essential factors whose role should be considered whenever a causal explanation of a social phenomenon is given.

I can conclude this section by arguing that linguistic power struggles are important elements for critical realists but they are not determining factors or mechanisms that prevent us from judging the validity of knowledge claims. There are still two important remaining issues that have to be dealt with: the exact meaning of open and closed systems and the tangible ways of making robust validity judgements. The next section will discuss the definitions of and differences between open and closed systems while section 3.3 deals with the question of validity judgements.

3.2 OPEN AND CLOSED SYSTEMS[49]

So far I have identified social-scientific closed-systems approaches as forms of epistemology emphasising the possibility and, indeed, necessity of social science to detect different event regularities. The open-systems approach is then often simply understood as its logical opposite: a framework denying the existence of universal geo-historical regularities in the social sphere. The reasons why critical realists usually dismiss the possibility of finding true universally valid regularities in the social sphere are often related to the, at least partially, conscious nature of human action and the abilities of humans to understand the forces that affect their actions and social positions. This allows for important changes in human behaviour, attitudes and opinions and makes all causal relationships in the social sphere time-space-specific.

Such definitions are most often associated with Tony Lawson, the most vocal and probably best-known critical realist opposing mainstream economics (see Lawson 1997; 2003). The preceding Lawsonian definitions of closed and open systems are a satisfactory starting point for the analysis of

[49] This section has been strongly influenced by Victoria Chick and Sheila Dow's article "The Meaning of Open Systems" (2005).

different epistemological frameworks but they need to be expanded and revised to understand the more nuanced differences between various approaches.

Lawson has provided a more comprehensive definition of closed systems when discussing econometrics in his famed *Economics and Reality* (1997). He argues that detected causal sequences can be treated as universally valid in all possible domains of time-space only if all three crucial closure conditions are satisfied at the same time: extrinsic closure, intrinsic closure and the aggregation condition. Extrinsic closure refers to the assumption that the identification of all variables capable of realising the sought-after outcome is possible (Lawson 1997, chapter 7, "Extrinsic Closure" section[50]). Otherwise, the researcher could never know if an additional variable might have, at least partly, caused the studied outcome.

The intrinsic closure condition is the requirement for coherent and repeated behaviour in similar situations. The problem here is that what accounts for "similarity" is almost impossible to define. For instance, positivists might refute an old theory if it is no longer capable of predicting outcomes. The assumption in these cases is often that the theory was incomplete and there is actually some other universally valid causal relationship that produces the outcomes under scrutiny. However, another possibility is that humans have just started to act differently. The irony is that intrinsic closure is possible only "if any and every relevant individual can be characterised atomistically – in effect as lacking intrinsic structure". (Ibid. chapter 7, "Intrinsic Closure" section.)

The final requirement for a system closure is the aggregation condition which says that the causal connection detected at some sub-level can be generalised into a much broader level (ibid. chapter 7, "Aggregation" section.). What Lawson has in mind here is the alleged tendency of econometricians to study different phenomena in a sub-system level and then sum up the results to make a generalisation. However, this is not often sensible. For instance, the demand for a certain product may decline among higher social classes if lower classes want the same commodity or are able to obtain it more frequently than before. As Lawson points out, these problems are sometimes sought to contain by setting various conditions and restrictions which ensure the stability of the studied system. Nonetheless, such solutions hardly add to the credibility of the sought-after generalisations.

Lawson's more detailed definition of the closed-systems approach comes close to the characterisations of such methodologies made by other realists. Sheila Dow (2002) has probably provided the most meticulous definition of closed theoretical systems[51] with her eight-point list (see Table 1). As Dow

[50] The e-book version at my disposal does not include page numbers.

[51] Unlike Lawson, Dow has also listed the exact conditions for open social systems. Her main criteria are: the non-atomistic nature of the system, interdependency of structure and agency, the mutability of

herself admits in an article written with Victoria Chick, her definition is, however, similar to Lawson's with one exception (see Chick & Dow 2005, 372). The only disagreement between Dow and Lawson concerns Dow's criterion number two which states that "[t]he boundaries of the system are definite and immutable". Lawson (2004) refutes all such specifications since he claims that even mutable boundaries cannot characterise truly open systems as any boundaries would lead to artificial and unrealistic closures. Chick and Dow do not agree with Lawson's strict approach. They argue that even the whole discussion of structures implies "connections and boundaries (the limits to structures)" and go on to argue that "[a]s long as social ontology is understood in terms of system, or structure, then surely boundaries on complete openness are implied" (ibid.).

Table 1. *Sheila Dow's conditions for closed theoretical systems (Source: Chick & Dow 2005, 367)*

1) All relevant variables can be identified.
2) The boundaries of the system are definite and immutable; it follows that it is clear which variables are exogenous and which are endogenous; these categories are fixed.
3) Only the specified exogenous variables affect the system, and they do this in a known way.
4) Relations between the included variables are either knowable or random.
5) Economic agents (whether individuals or aggregates) are treated atomistically.
6) The nature of economic agents is treated as if constant.
7) The structure of the relationships between the components (variables, subsystems, agents) is treated as if it is either knowable or random.
8) The structural framework within which agents act is taken as given.

However, the question seems to be partly semantic as even Lawson accepts that it is extremely uncommon to detect a complete absence of event regularity in the social sphere. Thus, there seems to be at least provisional boundaries in the process of causation from Lawson's viewpoint too. He writes of "demi-regularities" which he defines as partial event regularities indicating, on the surface, "occasional, but less than universal, actualization of a mechanism or tendency, over a definite region of time-space" (Lawson 1997, chapter 15, "Interpreting Partial Event Regularities" section). Lawson is, hence, referring to currently prevailing but alterable sets of practices that are also often institutionally-based and space-specific. Various norms and institutions may

boundaries around and within the social and economic system and the embeddedness of identifiable social structures in larger structures (for a more detailed description of Dow's conditions see Chick and Dow 2005, 366).

cause the occurrence of event regularities which may appear as universal but are in fact socio-politically created and, hence, mutable[52].

Nonetheless, Lawson argues that mainstream economics is not analysing or seeking to understand institutionally-specific demi-regularities but trying to detect geo-historically valid strict regularities. He argues that mainstream economists try to imitate the natural sciences which are able to set up controlled experiments in order to discover event regularities valid in all possible regions of time-space.

Lawson, however, acknowledges that mainstream economists usually understand the limitations of making experiments in economics. Nevertheless, even though they know that economics research cannot be controlled in similar ways as in, say, medicine, they assume that the event regularities they detect are sufficiently close to strong regularities found in laboratory studies. (Ibid. chapter 15, "The Requirements of Orthodox Economics" section.)

While there are clearly some neoclassical economists who do not see any important difference between their work and natural sciences[53], it is questionable whether this is a majority position of economists or otherwise integral to the discipline of economics. As Chick and Dow (2005, 370) point out, Lawson's critique relies on the assumption "that the closed-system approach of mainstream economics can only be justified by closure at the ontological level". This, however, does not need to be the case as I will suggest later on.

Chick and Dow (2005, 369) emphasise that some level of closedness is required in all theoretical systems. They refer to S. G. van der Leckq's distinction between two forms of closedness/openness in social theory (see van der Leckq 2000). In the first alternative, some aspects of reality are

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[52] It is important to note here that the effects and influences of the social arrangements and institutions causing demi-regularities have to be clearly separable. Vague social structures like "capitalism" or "modern society" cannot be understood to cause demi-regularities *per se* if we are to uphold the notion that most human action is undetermined. On the contrary, one could point out that the existence of welfare state structures, like unemployment benefits, sets an actual floor on effective demand during recession periods and, thus, helps to bring about a seemingly stable growth path. Here the effects of the existing institutions can be described sufficiently thoroughly, so that the sought-after demi-regularity becomes credible.

[53] An extreme example is a Finnish economist Tuukka Saarimaa who criticised qualitative method-based research orientations in an interview published in the web pages of the free-market think tank Libera (2015). He claimed that there is less and less "real science" made in Finnish universities as qualitative methods are increasingly replacing formal quantitative methods especially in human and social sciences. Saarimaa went on to say: "Often human scientists justify this choice by the assertion that social and natural sciences should use different methods. It has never occurred to me when one should change the methods. The methods are the same when bacteria, fish, birds are studied. Why should the methods be changed when one moves from studying apes to studying humans?" (Translated by the author.)

ignored for the time being in order to highlight particular parts of the system, but more realistic assumptions are returned when the theorist gets back to analysing the totality. The second option is to assume "something known to be false which precludes later relaxation" (Chick & Dow 2005, 369). It is easy to agree with Chick and Dow that van der Leckq's first alternative describes quite normal (social-)scientific abstraction but the latter one is clearly in contradiction with the principles of any type of scientific realism.

Consequently, there are some forms of closure in all partial analyses. The corollary is that not all closures at the level of theory have to be justified by closures at the ontological level as Lawson claims. Following the framework of Chick and Dow and van der Leckq, I suggest that *what separates realist open-systems theorising from anti-realist closed-systems approaches, is the provisional nature of closures in the open-systems-based views vis-à-vis the permanent closures of closed-systems theories*. Thus, open- and closed-systems approaches are clearly separate from each other but they are not completely dichotomous.

Thus, if closures in mainstream economic theory are credibly presented as mere tools for provisional abstraction, the whole mainstream theoretical edifice can still be seen as being in tune with the principles of (critical) realism. This is exactly the way how, for instance, Dani Rodrik (2015) describes the purposes of modelling in neoclassical theory (see also Mäki 2018). The question then is whether this depiction of mainstream theory is convincing. I will get back to this issue in chapter 4. Suffice to say at this point is that I find Rodrik's presentation of the neoclassical approach overly favourable – at least when it comes to macroeconomics.

I have now discussed the key tenets of critical realism and my approach to it. My central argument, following Chick and Dow (2005), is that closed-systems theories are built around such event regularities the relaxation of which alters the logic and central message of the whole edifice. These are the kinds of sequences I call geo-historical regularities throughout this study.

After having now presented the key tenets of critical realism and my interpretation of them, I will next move to discuss validity judgements in critical-realist methodology. The question of validity is of crucial importance in this study since my main argument is that the bond-market-power narrative can be justified only by theories which are either flawed or insufficient in their depictions of real causal mechanisms.

3.3 CRITICAL-REALIST METHODOLOGY AND VALIDITY JUDGEMENTS

A critical-realist explanation begins from the same starting points as other forms of critical social science. The researcher usually detects a social problem and tries to find potential explanations for the occurrence of the unwanted phenomenon from earlier research or other less rigorous forms of knowledge production like journalism and non-fiction literature. The researcher then picks the most promising theories and viewpoints from existing academic and non-academic literature and possibly further develops some views into new theories.

Critical realists do not simply just try to falsify potential explanations by empirically testing them. This would be against the critical-realist social ontology that emphasises the open nature of social systems. Since human beings are capable of critically reflecting their actions, they do not necessarily repeat the same actions over and over again. Humans can also observe the actions of other humans and avoid the mistakes others have previously made. It is impossible to find historical regularities in human societies even though critical realists acknowledge the existence of demi-regularities. This also implies that the idea of testing the validity of different theories by means of falsification is often pointless since different data sets do not have to produce similar outcomes in an open social system.

Instead of falsification, a critical-realist-oriented researcher should aim to find corroborating theories. This means that the researcher tries to find different types of data (both quantitative and qualitative) that could be used to assess the validity of the theory. If no credible verification can be found, the theory's ability to explain current social conditions and processes can safely be assumed to be either non-existent or minimal. In addition to being able to disregard some theories, empirical examination can give the researcher some hints when certain causal relationships may have more significant role than others in a causal complex.

However, empirical analysis is only one step in the critical-realist methodology. Since critical realists assume that outcomes are usually caused by a multiplicity of factors and that there are factors that can cause the studied outcome in some other circumstances even if they are not active in the environment being studied now, the question of validity is more complicated for critical realists than for positivists. Since so many factors can have an effective role in a causal complex, the most important thing for the researcher is to analyse *in which sense* different knowledge claims are valid or not. For instance, some mechanisms presented in the academic literature might have no effect at all, some might reinforce or weaken the observed tendencies, while others have a more crucial role in the causal complex.

Critical realists usually want to pay special attention to *necessary* mechanisms when elucidating a causal complex. These are mechanisms that are indispensable for the realisation of the studied outcome: without the activation or presence of necessary mechanisms the studied effect will not be realised. However, even necessary mechanisms are not usually enough *per se* to realise the outcome. These mechanisms must *always* exist but typically they must also be accompanied by other mechanisms for the outcome to be realised. The difference between necessary mechanisms and other causally efficacious mechanisms is that necessary mechanisms must be activated each time, whereas other mechanisms are replaceable.

Necessary mechanisms must not be confused with demi-regularities, that is, causal relationships that seem to appear quite often. Necessary mechanisms are factors that *by definition* are indispensable for the realisation of the studied outcome whereas demi-regularities can be caused by a non-necessary but common mechanism.

For instance, inflation is possible only if the quantity of money in circulation or the velocity of money increase. It is, thus, a necessarily valid argument to say that inflation occurs only in those circumstances in which the central bank allows the money supply and/or the velocity of money to increase[54]. However, this is not the whole story. Even though these factors are prerequisites for the price level to rise, they do not cause inflation only by themselves. If more central bank money is provided to the banking system, this still does not mean that corporations and individuals want to take new loans or increase their spending. As for increases in the velocity of money, they can as well increase the level of output as they can increase the level of prices.

Hence, there must be other mechanisms that connect with increases in money supply or velocity of money if rising inflation rates are to appear. For example, there might be excess demand, too high wage demands, bottlenecks in the labour market or increasing international commodity prices which can all lead to accelerating inflation if the money supply is allowed to rise too.

We can draw two conclusions to sum up this section. Firstly, critical realists believe that social theories must be empirically tested (or analysed, if you like). However, they do not accept falsification as the starting point for empirical analysis since falsification can only help us to bypass obviously wrong theories but not to pick the right propositions (Hartwig 2007b, 172). The only practical purpose of falsification is to assume that those theories that survive the empirical testing must stand until they are refuted. This is not a sensible starting point since we have no reason to claim that a causal relationship detected in Finland during the 1970s would hold in, say, Botswana in 2023.

Falsification is a useful basis for research if we are dealing with closed systems. Then we can safely assume that those causal relationships that continuously survive empirical testing are universally valid. Nevertheless, there are few universally valid regularities in human societies which is why empirical analysis must concentrate on finding causal mechanisms that prevail in particular institutional, historical and areal contexts. This is why critical realists support positive corroboration rather than negative falsification.

[54] I am aware that money supply is considered to be endogenous basically everywhere. However, even in the context of endogenously flexible money supply, the central bank has to guarantee that the quantity of central bank money in the interbank market increases as much as the demand for it (or that there is enough central bank money available from the discount window) if banks are to be able to freely create new loans and, as a by-product, money (see Ahokas & Holappa 2014b, 134–171). I am also aware that central banks cannot dictate the velocity of money, but they are still able to influence it by administering the interest rate.

Secondly, critical realists must clarify how various causal mechanisms operate and are connected to each other in a causal complex. It is especially important to describe which mechanisms are activated in what circumstances and which mechanisms must always be activated for the studied outcome to be realised. The first task is often based on empirical research, whereas the latter one usually requires philosophical inquiry to prove that some mechanisms are necessary by definition.

One way of making these interventions is to rely on contrast explanation. By using contrastive or counterfactual reasoning, the researcher can analyse which mechanisms are necessary for a certain phenomenon to occur. Firstly, the researcher can try to envision a social process without a mechanism X and then analyse whether it is even theoretically possible for the studied phenomenon still to occur or what it would necessitate for the phenomenon to occur under the absence of X. Secondly, the researcher can also compare historical processes which share a largely similar causal history but have a marked difference in some regard. In the latter option, the researcher can study whether the observed difference leads to a (dis)similar end result.[55]

However, even though the critical-realist literature can offer some practical guidelines for undertaking social scientific research, critical realism cannot provide a manual for it. Scholars who base their thinking on critical realism must make the actual methodological choices by themselves but those selections have to be consistent with the open-systems ontology of critical realism. In section 3.5 I will describe and justify the research strategy adopted for this study. Before dealing with the research strategy, I will take a look at the connections between ideology and social science.

3.4 IDEOLOGY, POLITICS AND SOCIAL SCIENCE

Not all science obeys the critical-realist recipe of making social science. Quite often the social sciences degenerate into an ideological power structure which does not aspire to describe the complex interplay of different causal factors but either passively defends the dominant paradigm or is uninterested about real social structures and, for instance, focuses only on observed regularities. These types of research can be called ideological once we accept the classical definition of ideology as false consciousness that is built around unjustified yet authoritative statements about world order (Hartwig 2007c, 179).

According to Mervyn Hartwig (2007c, 180) science often corrupts into ideology in two ways. The first of these is the Kuhnian route. Thomas Kuhn (1962) had already observed in the 1950s that academic communities rarely lived up to the ideal scientific standards in which the rule of the best argument reigned. He noticed that most often, leading academics were reluctant to

[55] Possibilities of and limits to contrast explanation are discussed in detail in Morgan & Patomäki (2017).

accept criticism that targets the core of their assumptions – no matter how well that criticism was founded.

Better-known academics usually have a vested interest in safeguarding the existing paradigm: they have built their careers and gained a reputation and also often financial wealth by defending and protecting the current scientific mainstream. Thus, they often do everything to protect the "normal science" from revolutionary ideas regardless of the merits of these ideas.

Normal science that refuses to engage in rational and open-minded discussion with revolutionary science is here termed *corrupted science*. This type of science uses the authority of science to legitimise some statements that have not been defended in open scientific debate or have been refuted, at least to a large extent, in those debates. Corrupted science may either serve the interests of some powerful social groups or scientists themselves, but it does not obey the principles of rational argumentation. Thus, it is an ideologised form of science as it is not even aspiring to offer realistic explanations or descriptions.

There is, however, also a subtler form of ideologised science. Ideologisation may also appear in the form of *distortions* in the accepted range of methodological choices. This type of science may, in principle at least, accept even revolutionary theoretical standpoints as long as they can be defended with a small set of accepted methods. A science like this becomes distorted if the collection of approved methods limits the opportunities for realistic explanation.

A strict positivist-type social science is a case in point. The sole accepted object of hard-line positivists is to detect empirical regularities with quantitative methods. From a realist perspective, however, there are no overdetermining geo-historical regularities in the social world. In addition, quantitative methods may not always be well-suited for identifying causally efficacious mechanisms since either there are no suitable quantitative data, or the existence of all potentially effective mechanisms cannot be detected because of intervening factors.

Naturally, social science does not have to be positivistically oriented to be methodologically distorted. Problems may also arise if, say, in a stringent poststructuralist context, all assessments about the validity of different truth claims are rejected. In such a context (be it a discipline or an academic journal or a conference) the archetypical accepted method would be some sort of a discourse analysis that could reveal the plurality of narratives and discourses while refusing to say anything about their validity. This obviously also prevents the identification of causally efficacious mechanisms.

However, it would be absurd to claim that all social scientific research not explicitly founded on critical-realist philosophy of science is ideological. The point is, merely, that all social-scientific approaches should *enable* (but not necessarily focus on) causal explanation. If necessary, elements of causal explanation are rejected or the whole idea of assessing or comparing the truthfulness of different knowledge claims is seen as impossible, causal relationships cannot be detected. Consequently, only those non-realist approaches that are also non-pluralist can be deemed to be distorted.

Distorted science has similar consequences as corrupted science[56]. It debars scientifically relevant viewpoints from academia only because the chosen methodology is not seen as “respectable”. By strictly narrowing down the accepted range of methods, the dominant academic forces are able to protect their own approach since radically different arguments can usually be made only with radically different methods.

Some scholars are concerned that the promotion of methodological pluralism can lead to “anything goes”[57]. However, very few pluralists would argue for such an orientation. The point is that especially in an open-systems context, which is defined by reflexive actors and in which scientific ideas themselves have real political significance, one cannot beforehand delimit some methodological approaches outside the scope of science since the nature and form of the research subject is under constant change.

Nevertheless, all methodological choices have to be defended in an open scientific debate and if counterarguments cannot be solidly refuted in those debates, the grounds for the choices disappear. Thus, scientific communities should not refute any methodological choices in advance but all decisions about the validity of the selected approaches should be based on the ability of researchers to defend their choices.

What is important to understand is that ideologised research can be reproduced unintentionally. Not all researchers who defend their paradigm with unhistorical scientism are even aware of the potentially unrealistic nature of their arguments. Many researchers have received little or no training in philosophy of science and often only passively replicate prevailing research traditions. Some scholars might also reproduce normal science only because of its institutional position: they may not even know that there are credible alternatives to normal science since the scientific field is dominated by theories, concepts and arguments stemming from the mainstream. Hence, the “normal” way of making science is often seen to be so self-evident, that instead of normal science, we could also speak of *hegemonic* science.

The ideologisation of academic research becomes politically significant if the academic authority of an outdated research paradigm is used to legitimise political decisions. It is important to understand that this does not require any active collusion. Mere passive socialisation into certain ways of thinking may lead to a process in which an academic or another individual tries to reify politically contested opinions as scientifically proven, neutral descriptions of the functioning of the world. This threat is obviously especially significant in

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[56] Mervyn Hartwig (2007c, 180) uses concepts “ideologies for science” and “ideologies of science” instead of corrupted science and distorted science. However, I consider Hartwig’s concepts to be somewhat obscure.

[57] On the criticism of this assumption see Dow (2004).

the social sciences but there are numerous examples of this process in the natural sciences too[58].

The ideologisation of some research traditions does not mean that the rest of science, especially the rest of social science, would be value-free or objective. Researchers' own values influence research settings in many ways: they influence the selection of research themes, the areas and aspects that are covered and ignored and so on. Almost all social scientific research also requires the interpretation of data which can never be fully objective or unpolitical.

Probably even more important are the political path-dependencies and prevailing social norms in different disciplines and schools of thought. For example, classical economics was found to offer arguments for a society based on a free market system, whereas Marxist economics was found to analyse the necessary destruction of capitalism. It is inevitable that the theoretical developments stemming from these starting points will lead to very different types of theory-formation. The starting points and the language that is thus chosen differs so heavily that it is extremely difficult if not impossible to reconcile the differing views.

Even though all social-scientific knowledge is political and value-laden in some sense, nevertheless, there is a difference between ordinary science and ideologised science. Distorted and corrupted scientific institutions prevent realist descriptions and explanations being sought. They lead to a perverted version of science that promulgates specific theories and methodologies without any intelligible justifications while at the same time excludes all other approaches.

However, it is also vital to understand that no research tradition is ever completely non-ideological. Most disciplines and research traditions contain mechanisms that unfairly restrict the role and reception of revolutionary scientists and their ideas. This was exactly Kuhn's own revolutionary point. The degree of ideologisation may vary between different academic fields.

Consequently, social science has often important performative and political aspects. In other words, in addition to its role as a mechanism of description and explanation, social science is a widely shared discourse that affects public discussion and general ways of thinking and acting. This becomes especially relevant if the ideas that shape our understanding and political decisions are not based on rational academic discussion but mostly on the authoritative role of powerful intellectuals.

[58] For example, academic medical studies that downplayed the problems of opiod use in health care are now considered to be key factors behind the American opioid crisis (Christie et al. 2017, 20). It has also been found that nutrition scientists who argued that sugar, instead of fat, is the biggest nutritional danger in modern societies were marginalised for decades despite the solid evidence the sugar critics had amassed over the years (Leslie 2016). The roles of pharmaceutical and food companies were crucial in the pathological development of these disciplines.

Thus, when we are speaking about philosophy of science, we can never focus only on the ontological and epistemological ideals of good science, but we must always critically analyse the social and political role of science. Otherwise we risk replicating power structures and limiting our understanding instead of producing emancipatory and scientifically important research.

There is also the further problem of the practical limitations of scientific inquiry. As research can never reveal the truth in its entirety, we must always make decisions about the particular mechanisms or areas we seek to uncover in our studies. However, these decisions have obvious political effects which is why the question of scientific significance should always be democratically assessed as Philip Kitcher (2001; 2011) has frequently pointed out.

After these critical remarks about the political aspects of the social-scientific process, it is now safe to move discussing the research strategy of this study.

3.5 RESEARCH STRATEGY

This is a theoretical study that explores why there has been a strong tendency within Political Economy to insist that even monetarily sovereign governments are disciplined by global bond markets. The study focuses specifically on the role of economic theory for two key reasons.

Firstly, economic-theoretical assumptions inevitably constitute necessary elements of the causal complex behind the emergence of the bond-market-power narrative. If one makes claims about limitations of state-level economic policy, these supposed limitations have to be based on some set of ideas concerning the functioning of the economic system.

Secondly, the influence of economic theory might often go unnoticed since some scholars may not even be aware that their theorising includes dubious economic-theoretical assumptions. As is well known, people might socialise into the common-sense way of thinking without making any active decisions about the validity of the claims that are included in the adopted stance. Hence, laying the emphasis on economic theory may improve Political Economy theory as some theorists are forced to question the possibly hastily made assumptions behind their argumentation.

Even though I am primarily making a theoretical argument instead of an empirical assessment, the study must be based on a rigorous research strategy so that the key claims of the study are as watertight as possible. I will next go through the central elements of my research frame.

The first part of my research strategy was to construct the BMPN from previous research. The purpose of this part is to depict the different strands of BMPN and its historical evolution. From this basis, I will describe the central common elements of all BMPN theorising. The first part of the research frame was presented in chapter 2.

The second part of my study utilises the critical-realist idea of contrast explanation[59] to explain how economic theory has influenced BMPN theorising. The point of contrast explanation is “not to explain some *x,* but rather to explain why *x* rather than *y* in conditions where *y* was expected” (Pratten 2007).

Contrast explanation is well-suited for making explanations in open social systems because there are almost endless numbers of potential outcomes. Still, it is highly interesting to study why a particular outcome out of a bundle of potential outcomes has happened. This becomes especially interesting if one specific outcome ensues continuously. This usually means that there are some structures or practices that prevent the occurrence of other plausible outcomes. It is these very structures and practices that have the biggest social significance since they effectively limit the scope of political alternatives in an otherwise open system.

Contrast explanation is especially well-suited for this study since this monograph is a meta-study of Political Economy studies analysing the influence of bond markets on government policy. Broadly speaking, the studies analysing government-bond-market power can arrive at two alternative conclusions: either bond markets are able to discipline state-level economic policies significantly or they are not. It seems that the almost unanimous assumption of Political Economy theorists is that bond markets have real, extra-discursive, effect on the conditions of state-level economic policy. This is an interesting observation since it can be safely assumed that all Political Economy scholars understand that monetarily sovereign governments are able to finance their spending through their central banks. For some reason this understanding does not have any noteworthy effect on their conclusions.

Therefore, Political Economy theorists can end up with two possible conclusions but they seem to arrive, repeatedly, at only one of these two possible results. Thus, it can be inferred that they expect there to be some economic mechanisms making the central bank financing option futile. The second part of my research process analyses, firstly (1), how certain economic theories end up backing the BMPN by insisting that central bank financing is necessarily harmful in the long run and, secondly (2), how other economic theories arrive at completely different conclusions. After this depiction, I will focus on explaining what the core proposals are that enable the second set of economic theorists to escape the problems the first group of theorists encounter with central bank financing of government spending. This analysis will finally reveal the economic-theoretical assumptions that are necessary for the BMPN.

The third part of my research strategy deals with how realistic both economic-theoretical alternatives are to central bank financing of government spending. I will compare how the key differing assumptions of these

[59] On contrast explanation see e.g. Pratten (2007) and Morgan & Patomäki (2017).

approaches correspond to previously collected empirical evidence and existing social institutions.

In order to argue that specific economic-theoretical claims have diverted political economists into maintaining that bond markets can considerably discipline state-level economic policies, I also have to convincingly argue that the economic-theoretical foundations of the BMPN are either erroneous or, at least, questionable. Otherwise it could be argued that the popularity of the BMPN depends only on its ability to explain real-world phenomena. The second and third parts of my research strategy will be included in chapters 4 and 5.

These three parts constitute the core of my study, but this book also includes supplementary components. The final parts of chapter 5 and chapter 6 will present discussion on the real limitations of state-level economic policy after I have concluded that bond markets are not able to discipline state-level economic policy in the way that BMPN argues they are. These parts will also present global reforms necessary for the achievement of maximum state-level economic policy autonomy.

3.6 CONCLUSIONS

This study is closely tied to many poststructuralist ideas. A key background reason for studying the bond-market-power narrative is the potential influence it has on policymaking and social reality. It is not foolish to assume that the continuous reiteration of same theoretical standpoints will affect the minds of the thousands of people who constantly hear and read them.

Some hard-line positivists might be reluctant to accept this, as it would highlight the performative role of social science. The fear is that if the scientific process affects the research subject, we cannot achieve objective and impartial results.

Nevertheless, I maintain that mature social science should assent to the fact that social reality is discursively constructed. Social science does not differ from other powerful institutions: the most often repeated social scientific viewpoints shape the environment we are living in regardless of their truthfulness.

However, there is a clear boundary between my perspective and the typical poststructuralist position. This book is built around critical-realist methodology which, although emphasising the role of language, also sets limits to its influence. While many poststructuralists would argue that it is impossible to compare or test, the validity of different truth claims because of their differing discursive backgrounds, critical realists suggest that linguistic barriers do not cause such strict lines of demarcation. People are usually able to operate under several overlapping meaning systems and explicitly underline the pursued meaning of their utterance.

Thus, even though this study has its foundations in discursive power analysis, first and foremost it deals with the truthfulness of different economic-theoretical claims. Critical realism offers a solid basis for both critical power analysis and validity assessments of different truth claims since its focus is not on geo-historical regularities, but on causally efficacious mechanisms. Critical realism tries to elucidate the mechanisms that are behind the phenomena one is trying to study and what role these mechanisms play in the whole causal complex. Hence, discursive structures can be brought into a critical-realist explanation in the same manner as more material factors. None of this requires the researcher to abandon the pursuit of truth and reality.

In this study my aspiration is to explain how closed-systems economics is a necessary element of the BMPN. This is done by using contrast explanation – a key critical-realist method – to show how BMPN is compatible only with those theories that assume a convergence to some version of a natural rate of growth theory. The study further argues that closed-systems economics depicts the institutions of a modern monetary system in a fallacious way and, hence, gives an erroneous view of key macroeconomic structures.

I am trying to expand the explanatory and emancipatory potential of Political Economy by revealing these economic-theoretical deficiencies of the BMPN. This far there has been virtually no discussion about the economic-theoretical underpinnings of the narrative which is why numerous scholars seem to repeat the same problematic arguments without even defending the theoretical choices they have made. Hence, it seems that many BMPN theorists have not even questioned the economic logic behind their arguments and have merely passively replicated something they have deemed to be self-evident. By shedding light on the hidden assumptions that are necessary for the inner logicality of the BMPN, the aim in this study is to make Political Economy researchers more aware of their theoretical commitments and, thus, to improve the quality and effectiveness of the whole field.

4 CLOSED-SYSTEMS MACROECONOMICS AND BOND-MARKET POWER

I mentioned in the second chapter that the bond-market-power narrative requires an assumption about the inflationary consequences of central bank financing of fiscal deficits. This is because otherwise states with relatively strong monetary sovereignty could always bypass bond markets by resorting to central bank borrowing.

The most typical inflation-based argument against central bank financing is some version of the 18th century quantity theory of money (QTM). This is the line of argumentation pursued in many economics textbooks (see. e.g. Burda & Wyplosz 2013, 222; Mankiw 2011, 252–254). The basic idea behind these views is that the value of money depends on the quantity of money in circulation. Thus, when a central bank "prints" more money to cover government expenses, this simultaneously raises the inflation rate. This leads to an ever-greater need to print money, eventually causing disastrous hyperinflation and the collapse of the state's monetary order.

There are alternative versions of the same story. In the second chapter (page 42), I presented a quote from Wolfgang Streeck who uttered that central bank financing may lead to a collapse of trust felt towards the state currency. This is questionable from a neo-chartalist viewpoint since a key tenet of chartalism is the idea that taxation drives money, meaning that the trust towards state money cannot vanish as long as the state is able to impose taxes on its population effectively (see e.g. Wray 1998). The idea is that the population will have the need to collect state money as long as they need it for the payment of taxes.

Similar worries are often echoed by central bankers. For example, Antti Suvanto, a former advisor to the board of the Bank of Finland (BoF) and a long-serving high-ranking official in BoF, criticised me and my colleague Jussi Ahokas after we had published a Finnish-language book (see Ahokas & Holappa 2014b) about post-Keynesian and neo-chartalist economics that included a discussion about the opportunities for central bank financing of government spending:

> *The whole modern monetary economy based on debt relations, and where money is created from "thin air", is built on trust. Trust is needed to get the payment made. The seller needs to trust that the bank note or the cash transfer to their bank account will continue to function as valid purchasing power. In other words, they need to trust that the bank will not collapse and the state does not confiscate the wealth of the bank note-holder or the depositor through inflation.*

> *The history of the monetary economy is full of examples of the vanishing of trust. Throughout the history, rulers have excelled in weakening the value of money and banks have taken too many risks.*
>
> *Suvanto (2014, 4). [Translated by the author.]*

The logic behind these arguments is that central bank financing may weaken the value of state money, thus prompting people to abandon state money and switch to using a foreign currency or a commodity as the basic means of payment. The reason why these commentators fear that "printing money" would cause uncontrolled inflation and, hence, lack of trust towards state money is again related to QTM.

This is well captured in Suvanto's quote in which he is implicitly speaking about the "inflation tax"[60], a concept that refers to the idea that increases in the quantity of money lead to higher inflation rates inflation rates in the long run, and, consequently, function as a tax-like instrument. Hence, even the argument about the possibility of the evaporation of trust towards state currency is based on QTM in the end.

There are many reasons why central bank financing of government spending might not be a realistic alternative even in many monetarily sovereign countries. For instance, there are laws that forbid central banks from financing governments. Also, the belief that central bank financing will lead to hyperinflation seems to be deeply entrenched in many countries[61]. Popular theories have real influence regardless of their validity.

Nevertheless, the point is that however strong these mechanisms might be, they do not relate to the power of financial markets which is the subject of this study. It is both academically and politically important to understand whether the absence of political alternatives is due to domestic factors or whether the global context prevents the implementation of unorthodox economic policies. Domestic laws or even popular beliefs can often be changed more easily than global power relations since that would usually require the consent of most major powers.

I suggest that the reason why some schools of thought within economics insist that central bank financing of government spending has to lead to accelerating inflation in the long run is connected to the closed-systems approach these schools of thought are built upon. They are based on the idea that there are gravitational forces in the macroeconomy. These forces coerce the oscillating unemployment rates into a level determined by the "economic fundamentals", that is, supply-side factors. The corollary is that demand stimulation must be inflationary in the long run as it will push the

[60] The inflation tax argument is more thoroughly presented in Mankiw (2011, 252–254).

[61] For example, I have noticed that many high school-level economics textbooks in Finland still refer to QTM and monetary inflation when dealing with macroeconomics (Holappa 2014a). As many students never study economics after secondary school, it is likely that this type of teaching has a long-lasting influence.

unemployment rate below its “natural” or “normal” level, thus inflicting an inflationary cycle.

I argue that the closed-systems approach was largely built into the tradition of Classical Political Economy. This might be an uncompelling argument to some scholars, as Classical Political Economy is often presented as a historically and socially aware tradition that has few links to the more positivist *neo*classical tradition. In the next chapter, however, I will suggest that the demarcation line between Classical Political Economy and neoclassicism might not be as strong as some scholars claim. For instance, Say’s law, the assumption that the economy will always return to a natural rate of unemployment and therefore to a natural rate of growth in the long run, was a key part of Classical Political Economy. Thus, the basics of a closed system which is always driven into the same equilibrium by the same forces, regardless of the prevailing institutional structures of the economy, were already in place in the early 19th century – many years before the marginalist revolution and the subsequent birth of neoclassical economics.

I argue that two powerful theoretical traditions are based on Classical Political Economy and that can be used to legitimise the BMPN: neoclassicism and classical Marxism. Neoclassicism refers to the dominant paradigm in economics. Its influence on other social sciences is obvious and uncontested.

However, I will also highlight the tradition of classical Marxism – a concept I use to describe the strands of Marxism that connect Marxian economic theory directly to the tradition of Classical Political Economy – since some BMPN scholars are averse to neoclassicism. It is possible that these scholars might have been influenced by neoclassical economics because of its hegemonic position, regardless of their openly uttered resistance to it. Hegemonic ideas assimilate into social reality unnoticed which makes it difficult to resist them if one does not happen to be a specialist in the field in question. However, presenting classical Marxism as a potential legitimacy-giving source to BMPN is to prove that radical thinkers can also be lured into accepting the disciplinary power of government bond markets even when they have good knowledge of economic theory.

I do not want to argue that neoclassicism and classical Marxism are the only theories or schools of thought that will offer arguments to oppose the active use of central bank financing of government spending. Nevertheless, I am arguing that these are the two most influential traditions giving legitimacy to the abandonment of central bank financing.

I am also suggesting that all imaginable economic-theoretical denunciations of central bank financing must be based on some version of the same argument promulgated by both neo-classicists and classical Marxists. This is because central bank financing of government spending undisputedly makes aggregate demand stimulation easier. A rising level of total production is the direct consequence of increases in demand but these positive ‘real’ effects can be undone if they are counterbalanced by negative ‘nominal’ effects, namely, increased inflation.

Some economic-theoretical mechanisms can be used to debunk central bank financing of government spending which are not immediately related to inflation, but a close examination will usually reveal a connection to inflation fears even in these cases. The best example is the so-called crowding out effect referring to the idea that fiscal policy stimulus leads to increased interest rates that at least partially counteract the stimulatory effects of the lax fiscal policy stance (see e.g. Mankiw 2011, 371–372). The reason why the central bank would allow the interest rates to rise is that increased aggregate demand could threaten price stability. Consequently, it is difficult to see how central bank financing of government spending could be opposed without connecting it to the fear of accelerating inflation since otherwise, increases in total demand should have positive results.

I will begin the discussion about the closed-systems case against central bank financing by examining its theoretical roots in Classical Political Economy. I will then move on to studying how the same ideas were transferred from Classical Political Economy to modern neoclassical economics while the third subsection will deal with the closed-systems approach of classical Marxism.

4.1 CLASSICAL POLITICAL ECONOMY, SAY'S LAW AND CLOSED SYSTEMS

According to George Comninel (2000) modern capitalism began to develop gradually after England was conquered in the Norman Conquest of 1066[62]. The new royalty had to gain legitimacy from the English population by basing its power on the rule of law and on guaranteeing more personal freedom for those peasants who had free tenure. Eventually, the process led to the creation of the modern common law system which established strong property rights and laid the basis for new capitalist social relations.

Capitalist class structure became even more entrenched after the Glorious Revolution of 1688–1689. Even though the background of the Revolution can be traced to a conflict between the catholic king James II and the protestant-majority parliament, the Revolution's societal consequences were not limited to religious relations. The Revolution led to substantial restrictions in the monarch's powers and to a significant rise in the parliament's institutional position. All this strengthened the role of autonomous civil society vis-à-vis the state apparatus. Kees van der Pijl (1998, 68) has neatly summarised the significance of the Glorious Revolution:

[62] There are various competing, but partly complementary, narratives of the history of capitalism. The storyline that I am following here is the one that is most clearly connected to the emergence of Classical Political Economy. However, this does not mean that other narratives could not reveal important aspects of the early history of capitalism.

From then on we can begin to speak of a civil society, a society from which the state has withdrawn after having imposed itself actively and constructively, shaping the institutions needed to permit the "liberal" withdrawal from the sphere of wealth creation. This withdrawal leaves behind its traces in the form of the legal guarantee of private property and binding contract, as well as the infrastructure for their legal vindication without which "civil" self-regulation would soon degenerate into violence again. Thus the property-owning classes obtain their autonomy from the state and the freedom to exploit whatever human or natural riches the world has to offer.

Even before the Glorious Revolution and the consequent weakening of the state apparatus, Western philosophers had been wrestling with the problem of order. As the religious establishment had lost its authority after continuous religious wars, the key question seemed to be "[h]ow is it possible to have an organised and relatively peaceful society in the absence of God and His commands" (Patomäki 2003, 30).

The problematic, however, became more acute during the late 17th century for reasons that were somewhat unrelated to the decline of the state. The period of worsening climate, The Little Ice Age, affected Europe most heavily in 1690s when starvation and the ensuing diseases plagued several European countries. This led to increasing violence and civil unrest in a context in which it would have been unthinkable to rely on the almighty sovereign to restore the order as the king's powers had just been clamped down, especially in Britain. Therefore, new solutions were needed.

Some philosophers suggested that selfish and utility-maximising behaviour could be turned into benefiting the whole society. David Hume can be seen as the ground-breaking thinker when he suggested that the tumultuous socio-political environment called for rational and circumspect behaviour. He argued that rational men were also "possessive and calculative" by nature (ibid. 25)[63]. Thus, the society should encourage calculative and egoistic behaviour by creating an orderly environment for the pursuit of everyone's own interests.

Hume's student Adam Smith argued a few years later that the legally controlled market system could function as such a setting. His *Wealth of Nations* (1776) created the basis for the rise of Classical Political Economy by solving the problem of order without the creation of new repressive political structures.

Smith has become best-known for his metaphor of the invisible hand of markets in which he claimed that when buyers and sellers meet at the marketplace, a productive pattern based on the preferences of consumers

[63] Hume's (1777) original arguments are presented in his *Enquiries Concerning Human Understanding and the Principles of Morals,* which was first published in 1748 as a rewritten version of *A Treatise of Human Nature* published in 1739.

emerges[64]. Thus, the utility-maximising behaviour of both producers and consumers turns into everyone's interest as society's productive resources are allocated according to the tastes and wants of the public.

However, Mark Blaug (1985, 61) has pointed out that Smith's theory of allocation was not restricted to a few metaphorical utterances as it is sometimes assumed. He did understand the differences between optimal allocation of resources within an industry and allocation between various sectors of the economy. As Blaug (1985, 61) suggests, Smith argued in chapter 7 of Book I of the *Wealth of the Nations* that competition brings prices close to costs of production, optimising "the allocation of resources *within* industries". Nonetheless, Smith extended his discussion to allocation between various industries in chapter 10 of Book I – thus creating the premises for a modern theory of resource allocation.

However, Smith's contributions were not limited only to questions of allocation. He also laid the foundations for modern macroeconomics by presenting an early version of an economic argument that became later known as Say's law. Smith acknowledged that the invisible hand of the markets had little relevance if the market economy was seen to be prone to underconsumption that could cause a long period of negligible economic growth. Optimal allocation of resources would not be very comforting if the total production grew abysmally. Thus, if Smith's theory was to serve its socio-political purpose of legitimising the autonomy of the civil society and the non-intervention of the state to market relations[65], it had to be able to also tackle the possibility of permanent underconsumption.

Smith's solution was simple: increases in savings do not reduce aggregate demand as rising savings levels necessarily lead to increasing levels of investment. According to Blaug (1985, 56) Smith's idea was that saving does not usually appear in the form of hoarding money but rather in the form of holding either commodities or financial assets[66]. Hence, the seller of these

[64] This summary of Smith's argument has been borrowed from Heikki Patomäki (2003, 30–31).

[65] I am aware that Smith's views on regulation and economic policy were not as simplistic and unambiguously economic-liberal as they are sometimes presented. However, I maintain that his main goal was to show that the free market system is efficient and not in need of constant control by the sovereign, despite all of his reservations and remarks.

[66] Smith was writing in an era when financial markets were still very underdeveloped or nonexistent. Thus, he was mostly writing about "commodities" but these commodities would now be best understood as financial assets. Smith was vague when writing about the commodities used in the practice of saving but precious metals like gold and silver were probably in his mind (see Smith 1776, Book IV, chapter 1). This is also likely because Smith's monetary theory was based on the understanding of money as mostly only a medium of exchange. Smith was a key developer of the so-called commodity money view which interpreted money as one form of commodity and not as a sign of credit relations as was argued in the credit theory of money (see Ahokas & Holappa 2014b, 29–73).

assets gets the monetary income of the buyer and aggregate consumption therefore stays more or less intact.[67]

Smith's heirs improved his theory by taking the hoarding option more seriously. Several explanations were given why hoarding could not lead to "general gluts". For example, John Stuart Mill (1844), argued that price drops will eventually lead to increased consumption as people begin to expect that prices will soon start to rise again (Blaug 1997, 232–233). A few decades earlier, Jean-Baptiste Say (1803), the economist and businessman who has become the symbol of this theory, had laid the foundations for a modern interest rate mechanism when he argued that if the money supply increases as a consequence of a spike in the demand for money, the value of money will decrease in accordance to the principles of the quantity theory of money (Jacoud 2017). Thus, there is an automatic nominal adjustment mechanism to the hoarding problem.

The basic conclusion that can be drawn from Say's law is that total production and employment are not dependent on aggregate demand in the long run[68]. Thus, demand increases in the long run can lead only to accelerating or increasing inflation with miniscule or non-existent positive real-economic effects. This means that central bank financing of fiscal deficits is useless in the long run as "money-financed" demand stimulation would increase aggregate demand and, hence, lead only to severe inflation problems. Consequently, Say's law is a crucial component in the wider theoretical corpus protecting the neutral money axiom, that is, the modern version of the quantity theory of money.

Why then was the QTM so important for Classical Political Economy? One obvious reason is that it was crucial for the early economists to describe the economy as a barter system since only in a real-exchange economy could the

[67] A similar reading of Say's law was made by David Ricardo (1817, 209–2010) when he famously described it in the following words: "No man produces, but with a view to consume or sell, and he never sells, but with an intention to purchase some other commodity, which may be immediately useful to him, or which may contribute to future production. By producing, then, he necessarily becomes either the consumer of his own goods, or the purchaser and consumer of the goods of some other person. It is not to be supposed that he should, for any length of time, be ill-informed of the commodities which he can most advantageously produce, to attain the object which he has in view, namely, the possession of other goods; and, therefore, it is not probable that he will continually produce a commodity for which there is no demand."

[68] The whole concept of long run is somewhat misleading as it cannot be clearly connected to actual historical time. In neoclassical usage, long run refers to the time period when all adjustments have been made and the economy has returned to general equilibrium from the previous shocks (see e.g. Cohen 2007, 297–298). I see little relevance for this sort of ahistorical concept of time, but it is used here in order present the theories in their original form. Even though classical economists still operated mostly under historical time, Say's law was based on a neoclassical-type understanding of time. Most classical economists accepted that there can be temporary demand deficiencies but argued that, at some point in time, they *have to* disappear (Blaug 1997).

actors be seen as atomistic and devoid of communal solidarity. The quantity theory of money, again, was an important element of a wider barter story.

What one has to understand when analysing the purposes of the early classicists is the context in which their theorising occurred. Still at the turn of the 17th and 18th century, it was atypical or even incomprehensible to interpret social relations as a competitive bargaining process in which everyone is trying to satisfy their own needs and wants. The attitudes and rationalities in early modern Europe were usually fundamentally communal (Graeber 2011, 307–360). Hume, Smith and their successors had to depict a completely new rationality – a form of being that would set the calculating, petty-bourgeois English Shopkeeper as the new admiration of all civilised men (Patomäki 2003, 25).

This is why money had to be a medium of exchange for the classical economists. A medium of exchange does not distort the rational-egoistic barter story. It only serves to speed up the transactions that would have taken place also regardless of the existence of money.

However, if money had been depicted as a sign of credit relations, the barter story would have collapsed since credit relations were, at least to a significant extent, based on trust and communal decision making before the creation of the modern banking system. This indeed was the way monetary relations were usually understood before the emergence of Classical Political Economy. David Graeber (2011, 330) has a telling quote from the English statesman Charles Davenant from 1696. In the quote, Davenant considers the consequences of a general collapse of confidence in the credit system:

> *They will find, that no trading nation ever did subsist, and carry on its business by real stock; that trust and confidence in each other, are as necessary to link and hold a people together, as obedience, love, friendship, or the intercourse of speech. And when experience has taught man how weak he is, depending only on himself, he will be willing to help others, and call upon the assistance of his neighbours, which of course, by degrees, must set credit again afloat.*
>
> *Davenant (1696, 152)*

Consequently, money had to be a mere veil for the classical economists. They wanted to replace an earlier understanding of credit money as a central organising institution of communally-structured social relations with an understanding of competitive trading as an organising principle of the economy (Graeber 2011; Ahokas & Holappa 2014b, 25–133). If money then is nothing more than a commodity that speeds up transactions of other commodities, it was assumed that there will be a constant demand for money in the long run. Thus, the value of money is determined only by the supply of money and the QTM is justified.

This led to Say's law-style analysis in which non-monetary factors, labour supply, productivity and the quantity of capital, finally determined the total output. Monetary phenomena like aggregate demand could have only a temporary effect in this worldview.

Had the classical economists embraced a credit theory of money, the whole logic would have been turned upside down[69]. If we understand that money is created as a by-product of new credit contracts, we would automatically understand that money is created when individuals make new investments. Most investments increase total production, so increases in the quantity of money do not have to lead to increases in the level of prices.

Most of the classical economists' work can be classified under the rubric of open-systems theory as they were writing about historical developments, their path-dependencies and changes in established historical patterns (see e.g. Blaug 1985). However, they needed some gravitational forces that could guarantee the harmonious development of the market economy if they were to present the market system as a stabilising and emancipatory social order. A fundamentally open system could drift into long-standing crises or periods weak growth which was obviously something that many classicists were reluctant to admit: in their worldview, the market economy was a lot more harmonious system – even a solution to the fundamental problem of order in modern societies. Say's law, then, was the mechanism that served the purpose of saving capitalist economy from criticisms that highlighted the possibility of system-level demand crises.

However, the acceptance of Say's law also began to push Classical Political Economy towards a stricter closed-systems approach. The development was finalised with the emergence of marginalist economic theory that finally transformed the Classical Political Economy into a new positivist and mathematised form of economic theory. This theory is now called neoclassical economics.

4.2 NEOCLASSICAL ECONOMICS AND THE FINAL CLOSURE

The capitalist class has always had strong connections to the scientific world. The roots of this development can be traced all the way back to the era of industrialisation. The bourgeoisie understood that science could play an important role in improving their living standards and wider societal position. Science offered entrepreneurs new business opportunities, the means to cut costs in existing industries and thus it helped them dethrone the old nobility (O'Boyle & McDonough 2017, 21–22).

[69] Credit theory of money was a concept coined by Alfred Mitchell-Innes in his seminal articles "What Is Money" (1913) and "The Credit Theory of Money" (1914). In his work, Mitchell-Innes challenged the long-held commodity money theories and offered a more realistic credit-based view of the nature and history of money.

It was obvious that the new philosophy "Classical Political Economy", legitimising the idea of the self-regulating market system had to be presented in the most scientific manner possible. The most advanced scientific approach of the late 17th and 18th centuries was Newtonianism. It was especially Isaac Newton's methodology that changed the way "philosophy" – or what we now call science – was understood. Speculative philosophy began to make way for new analytical science that was based on empirical testing of hypotheses and consequent construction of "laws" and mechanisms. Brian O'Boyle and Terrence McDonough (2017, 22) have captured the essence of the Newtonian turn in philosophy in their recent article:

> *The power of the Newtonian method lay in its unmatched ability to bring together empirical observations, creative leaps of imagination, powerful mathematico-deductive logic and skilled induction. Real-world observation was absolutely crucial, as was the move from empirical effects to underlying causes. To begin a scientific investigation, the various phenomena that were to be explained had to be meticulously observed, recorded and otherwise investigated. This entailed a process of analytical resolution which ended with a creative leap to the causal connections potentially underlying empirical phenomena. Once this was achieved, a whole series of further implications could be logically deduced through a synthesis of mathematico-deductive logic, empirical verification techniques and inductive inferences.*

The founding text of Classical Political Economy, Adam Smith's *Wealth of Nations*, was based on the Newtonian attempt first to analyse the surface phenomena of the economic system from which basis the general laws of the capitalist system could then be derived. Eventually, the revealed logic of the capitalist system could expose the underlying laws of the human behaviour in general. (O'Boyle & McDonough 2017, 22–23.)

Smith's successors like Jean-Baptiste Say and David Ricardo based their key works on similar methodological frameworks. However, ultimately, the tensions within the classical methodology became overwhelming. Two crucial problems had especial importance: Firstly, the classical economists did not rely on mathematical methods like Newton himself did, which reduced the scientific credibility of the theory as it did not seem as rigorous as its exemplar (O'Boyle & McDonough 2016; 2017).

Secondly, classical economists were inclined to concentrate on finding an empirical backing for their generalisations (ibid.). This was sometimes in stark contrast to the original political goal of the Classical Political Economy, namely, the legitimation of the market society. Classical economists had a strong belief in the harmony that was to follow from everyone's pursuit of their own economic interests. Smith and his followers were able to show how egoistic utility-maximisation would logically turn into everyone's favour, but the problem was that the empirical material they collected did not often give backing to the logical market-machine they had envisioned in their texts.

During the 19th century a peculiar solution to both problems was found: the near complete abandonment of empiricism. Young theorists like Stanley Jevons, Carl Menger and Léon Walras shifted the focus of economic theory from existing capitalism into an idealised version of a pure market economy in which perfect competition reigned. Jevons and his contemporaries replaced the empirical and historical analysis of real capitalist relations with a psychological analysis about the (supposedly) indisputable elements of human behaviour (ibid.). Jevons (1871, 18), for instance, lists at the beginning of his magnum opus, *The Theory of Political Economy*, three aspects of human behaviour he finds undeniable and universal: the tendency to always select the "greater apparent good", human beings' willingness to satiate their wants as quickly as possible, and their inclination to prefer leisure over labour.

The ground-breaking concept of Jevons and his colleagues was marginal utility which refers to the amount of utility received with the addition of one new unit of any commodity[70]. This changed the focus of economic theory from the questions of "changes in the quantity and quality of productive resources through time" to "pricing and resource allocation with fixed supplies of productive resources" (Blaug 1985, 306). Since it was assumed that all allocation decisions have their roots in the undeniable axioms of human behaviour, the economists could now begin to mathematically model all economic interactions. Thus, the discipline began to change from the historically-aware subsection of philosophy, namely, Classical Political Economy, into positivist and nomothetical social science that was later dubbed *neoclassical economics*.

The new neoclassical form of economics was no longer as interested in the existing capitalist institutions but on the alleged forms of human behaviour beneath those institutions. Supposedly, this allowed the theorists to analyse what happens in a market society in which all random shocks and political arbitrariness were erased. Economists could finally capture the pure logic of markets that more or less ruled the roost in the long run – or at least in the ideal world, which could be achieved by removing all friction and impediments to the free interplay of market forces.

The marginalist revolution also allowed the economists to repair some of the wholes and "paradoxes" of Classical Political Economy. One central problem of the classical theory related to QTM since its real-world relevance was put into question by the early heterodox economist Thomas Tooke in a

[70] To be more precise, one does not have to be limited to studying the production and distribution of goods and services in the marginalist analysis. The basic idea of marginalism can be applied to any sphere of life, be it human relationships, hobbies or intellectual endeavours. This is the way modern neoclassical economics operates, for instance, when it studies sexual interactions (see e.g. Baumeister & Vohs 2004).

series of publications from 1838 to 1857[71]. Tooke and his associates in the so-called Banking School argued that the stock of money did not determine aggregate demand as the orthodox classical theory had argued but, *vice versa*, aggregate demand determined the stock of money (see e.g. Lavoie 2014, 184). Thus, they constructed an early version of the endogenous money theory in the mid-19th century[72].

Tooke's arguments had crucial relevance since they could be used to disprove QTM and the policy recommendations that typically accompanied it. If the causality did not run from the money supply to the inflation rate, there was no need for gold standard-type strict monetary arrangements limiting base money growth. This was especially significant in the 19th century since the usual policy recommendation was that states should withdraw from actively interfering in the economy with the exception of implementing tough anti-inflationary monetary policies (see e.g. Ahokas & Holappa 2014b, 29–43).

Consequently, the neoclassical community wanted to base the QTM and its corollary, Say's law, on more solid and mathematically rigorous ground. Swedish economist Knut Wicksell was finally the theorist who managed to reform the QTM into a modern, respectable form (see Rogers 1989, 21–44). Wicksell's aim was to bring the principles of the QTM into a modern credit-based monetary system. He acknowledged that Western economies in the early 1900s were not commodity money systems in which one could easily equal the existing means of payment to any other precious metal or similar-type product. Wicksell (1898) understood that in a modern economy money was created out of thin air as a by-product of new loan contracts. Even though this starting point seemed to verify Tooke's claims and conclusions, Wicksell ended up defending the tight money views stemming from the old QTM.

Wicksell's theory was based on the separation of the actual interest rate (the market rate) and the interest rate that would be sustainable and optimal in the long run (the natural rate). Wicksell summarised his key conclusions in the following paragraphs:

> *At any moment and in every economic situation there is always a certain level of the average rate of interest, which is such that the general level of prices has no tendency to move either upwards or downwards. This we call the normal rate of interest[73]. Its magnitude is determined by the current level of the natural capital rate, and rises and falls with it.*

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[71] Tooke's six volume-long key work *A History of Prices, and of the State of Circulation, from 1797 to 1837* can be found from Internet Archive. For the first volume see (Tooke 1837).

[72] Endogenous money theory will be discussed in more detail in the fifth chapter.

[73] Wicksell used the concepts "normal rate of interest" and "natural rate of interest" mostly interchangeably. I use only the concept natural rate because it is the concept nowadays associated to Wicksell's theory.

If, for any reason whatever, the average rate of interest is set and maintained below this normal level, no matter how small the gap, prices will rise and will go on rising; or if they were already in process of falling, they will fall more slowly and eventually begin to rise.

If, on the other hand, the rate of interest is maintained no matter how little above the current level of the natural rate, prices will fall continuously and without limit."

Wicksell 1898, 120.

Wicksell's views were rather vague and complicated at times, but the essence of his theory boils down to the assumption that the long run interest rate cannot deviate from the long run yield of investment. Deflation will ensue if the market rate is too high compared to the theoretical natural rate (i.e. average yield of investment). This happens because investments do not carry enough profit to cover the refinancing costs. The entrepreneurs are forced to reduce investments which, in the end, will lead to deflation. The opposite occurs when the market rate is lower than the natural rate. In this scenario, the entrepreneurs have an incentive to increase investments as much as possible since each investment produces a higher rate of return than is the market rate for refinancing the investment. This will lead to continuous rises in the price level. (Wicksell 1898, 102–121.)

In the Wicksellian world, shifts in the market rate–natural rate ratios occur mostly because of changes in the long run yield of investments – not because of arbitrary changes in the market. The market is presumed mostly to follow the natural rate. As for the natural rate, it may change as a consequence of alterations in technology and labour supply since those factors influence the long run yield of investment. Intertemporal decisions of consumption also affect the natural rate by pushing it upwards whenever households and companies decrease savings in order to consume more immediately. Naturally, the opposite happens when private sector agents begin to save more and consume less than before. Aggregate demand or the level of unemployment, however, have no effect on the long-term yield of investment since in the long run demand deficiencies have been adjusted away. (Wicksell 1901, 190–202; Rogers 1989, 26.)

Nevertheless, Wicksell did not suggest that the market rate could infinitely deviate from the natural rate. According to him, the reason why the market rate could not fall permanently below the natural rate related to the official reserve requirements: very low market rates would encourage loan demand and, thus, in a fiat currency system, new money creation as money is created as a by-product of loan contracts. However, this process would halt in the end as banks' liabilities to reserves ratios would no longer be sustainable.[74] (Wicksell 1898, 102–121.)

In the case of higher-than-natural rate market rates, bank profitability would form the limitation. The crux of Wicksell's argument was that high market rates would lead to deflation, declining loan demand and hoarding of deposits. The banks would have to pay interest on the idle reserve deposits while new investment was discouraged. Hence, in the end, the banking sector would have to cut the market rates to secure their own profitability. When price stability would again be reached, no significant reserve hoarding would occur as there would be no reason to expect increases in the real value of reserves. (Ibid.)

Wicksell's theory was notable in two ways. Firstly, he could integrate the principles of QTM into a modern credit-based monetary system. Wicksell showed that even in a credit money system, a long run divergence from the natural rate of interest would cause either a cumulative inflationary or deflationary cycle. Since the natural rate of interest was to largely determined by "real" factors, that is, labour supply and productivity, they would also determine future growth rates. Aggregate demand would have significance only in the short run.

Secondly, Wicksell integrated his approach into the marginalist theoretical framework, thus separating it from the classical context in which economic processes were usually understood to be historically and politically situated. Wicksell, on the contrary, was developing a universally valid theory. For instance, his central aim was to show that QTM was not a theory merely suitable for the commodity money systems he supposed to have existed somewhere in the old days, but a proposition that is valid in all geo-historical variations of capitalism.

4.2.1 KEYNES AND THE CRISIS OF THE NEOCLASSICAL PLAYBOOK

Knut Wicksell laid the foundations for tearing down the historically positioned nature of the classical theory and universalising its key conclusions. After his key works were published at the beginning of the 20th century, the theoretical edifice of modern macroeconomics seemed to be more or less complete. Alfred Marshall, Dennis Robertson, Arthur Cecil Pigou and the likes improved many

[74] Wicksell's adjustment mechanisms are incorrect from a modern viewpoint, especially a post-Keynesian viewpoint. As I will explain in more detail later, reserve requirements do not form any real obstacle on credit creation. It is also unclear whether Wicksell understood the real role of reserves and that they cannot be lent outside the banking system. Even though the monetary system in Wicksell's era was yet quite underdeveloped, the key principles of the system were quite similar to the modern system. Money is necessarily endogenous in a capitalist economic system and, thus, Wicksell's views on how reserves help to adjust the interest rate back to the natural rate are misguided (see e.g. Moore 1991).

parts of the framework but the essentials came from the classicists, marginalists and Wicksell.

However, the new neoclassical macroeconomic theory reigned only for a few decades before the eruption of the Great Depression in 1929 challenged its foundations. The self-adjusting Wicksellian framework could not give any meaningful explanations for the onset of a long-lasting general slump that led to dropping levels of total production, mushrooming unemployment and widespread social crisis.

The crisis served as the necessary background for the rapidly rising popularity of John Maynard Keynes's new monetary theory of production[75]. Thus, I now have to make a sidestep in the depiction of the orthodox macroeconomic narrative. Post-Second World War neoclassicism to a large extent has been a reaction against Keynes's economic theory and an attempt to integrate it into the neoclassical storyline. In order to understand the key developments in orthodox macroeconomic theory, I have to delve into the arguments of its main adversary, Lord Keynes.

Keynes had been a student of Alfred Marshall and a mainstream economist himself – albeit a critical and an independent mind – but the experience of the Great Depression drove him into searching for new foundations in economic theory (Skidelsky 1992; 2009). However, the foundations of his new theory were laid a few years before.

Keynes had been a longstanding social critic and a prominent member of the so-called Bloomsbury group of British intellectuals (Skidelsky 1992, 10–18). The Bloomsbury group was hostile to the conservative, abstinent and stern culture of the early 20th century Britain. The Bloomsbury attitudes can be easily found from Keynes's writings too. For instance, he openly wondered and mocked the thrifty culture of the British bourgeoisie (ibid. 235–238). Keynes never understood why wealthy people were not willing to enjoy life and aspire for emancipation but imprisoned themselves to a dull life of continuous saving and repetition of harsh cultural norms.

Hence, Keynes viewed the love of money as a key example of sublimation – a concept coined by Sigmund Freud (1930) to describe the transfer of primitive aggression and lust from the sexual sphere into areas where they could get more socially acceptable manifestations. For Keynes, this seemed to mean that the "economic man" could fulfil his embryonic wants to subordinate and supersede other human beings by accumulating huge fortunes. For the economic man, money was no longer a means to get useful commodities but an end in itself. (Ibid.)

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[75] Keynes used the term "monetary theory of production" in his 1933 article published in the festschrift for the German economist Arthur Spiethoff. The article can be seen as an early summarisation of the key conclusions of *General Theory* (1936). I have decided to use the term to describe Keynes's theory here because it captures the importance of money in his theory. The concept has also been used by other scholars when referring to Keynes's macroeconomic theory (see e.g. Dillard 1980; Wray 1999).

Consequently, Keynes had always seen financial speculators and other money hoarders as the parasites of the market system (ibid. 542–543). He claimed that these groups did not contribute much, if anything, valuable to society but were still able to extract huge sums of money which they did not use for almost anything valuable. The political and moral criticism against the current economic culture this served as the intuitive starting point for his main work, *The General Theory* (see Keynes 1936, 154–161).

Keynes was convinced that the cultural perversion of hoarding money for almost nothing was linked to the onset of the Great Depression. He claimed that economic growth was mainly driven by the willingness to consume and invest but he needed an explanation for the variation in the aggregate demand in order to make his theory academically credible. Keynes, thus, went back to his previous work on probability and connected his analysis of fundamental uncertainty to macroeconomics (Skidelsky 2009). With fundamental uncertainty Keynes referred to something of which we have almost no information and of the probability of occurrence of which we cannot derive. Hence, fundamentally uncertain phenomena are beyond forecasting.

The inability to know the future lays the foundation for the growth of concern since households and companies are not able to predict when the economic downturn begins or ends. This may well give rise to increases in hoarding of money, as private agents begin to prepare for the worst and leads to sinking consumption and investment levels. Keynes argues that in the absence of reliable long run forecasts, private spending decisions are mostly determined by “animal spirits”, the instinctive sentiments that are currently prevailing in the society. (Keynes 1936.)

However, Keynes’s point is that there is no reason to believe that increasing levels of savings are transmitted into higher investment rates and, thus, adjust aggregate demand back to the normal level. Keynes argues that there is no natural limitation for the period when aggregate demand is below the full employment level. This is for three main reasons.

Firstly, the classical arguments for Say’s law are necessarily invalid in a money-using modern capitalist economic system since saving does not have to occur in the form of commodities or financial assets. There are clear incentives for both households and companies to keep some of their savings in the form of cash or deposits. This is because state-issued money is the only IOU that can clear all demands for payment in the current institutional setting. Hence, state money is the most liquid asset of all, and it is vital for all private agents to keep a portion of their wealth in money form to avoid bankruptcy. In times of growing pessimism about the state of the economy, the private sector’s liquidity preference increases and aggregate demand begins to drop (ibid. 245–249.).

Secondly, Keynes argues that decreases in interest rates do not necessarily have much influence on the macroeconomy. In the era of pessimism, people often fear taking loans with even minimal interest rates. After all, it is risky to commit to paying back any sort of a loan if aggregate demand is weak. On the other hand, even quite high interest rates are not enough to prevent entrepreneurs from taking ever more loans in the boom period of roaring animal spirits. Consequently, the Wicksellian interest rate mechanism is probably not enough to adjust the economy back to the natural rate. (Ibid. 147–164.)

Thirdly, Keynes was always sceptical, if not outright hostile, to the argument that increasing saving would lead to declining interest rates and vice versa. This was the adjustment mechanism that one could distil from Wicksell's work. It was made explicit by Dennis Robertson (1934) in his loanable funds doctrine which was based on the idea that banks are intermediaries transferring money from savers to investors. Thus, increases in savings will lead to decreasing interest rates as banks now have more loanable funds than before and the supply of money rises accordingly.

In contrast to Robertson's views, Keynes (1936, 167) claimed that to a significant extent, the "complex of various rates of interest" was determined by private agents' liquidity preferences. Keynes's liquidity preference refers to savers' decisions over "how to allocate their savings among alternative liquid assets that are available to them as time vehicles for storing and moving savings's contractual settlement to the future" (Davidson 2010, 10–11).

Today, almost all experts on Keynes's thinking suggest that Keynes was well aware that the central bank could set the short rates and the market-based long rates could never be lower than the short rates. This means that the liquidity preference theory determines the "the mark-up to long-term rates" (Dow & Dow 1989, 148). In practice, the savers have to consider how big a portion of their savings will be held in the form of cash and how big a portion will be invested in the real economy or financial markets. If private agents' liquidity preference is growing, they will liquidate a portion of of their investments and simply choose to keep more of their savings in the form of money. Consequently, the monetary authorities are not able to control long-term interest rates or the spread between short and long rates[76].

Further, Keynes's argument becomes even more relevant when one considers that central banks' abilities to manipulate interest rates are also hindered by banks' need to cover fixed costs through customer charges or loan rates (Lavoie 2014, 231). Consequently, when everything mentioned above is considered, one arrives at the conclusion that increases in aggregate savings

[76] The monetary authorities also have the opportunity to manipulate long-term interest rates through large-scale asset purchase programmes (so-called quantitative easing policies) as they have done in the aftermath of the Global Financial Crisis. It is still almost impossible for the authorities to control the totality of long rates with asset purchases because of the size of the market. Central bankers are also usually wary of the fact that unconventional asset purchases may affect the market allocation of investments (Kregel 2014, 2). This quite likely explains why so many central banks have focused on government bonds in their quantitative easing policies and why QE programmes cannot be expanded indefinitely.

do not have to lead to similar reductions in the entirety of all relevant interest rates.

Keynes (1936), hence, argues that Say's law is logical in a money-using economic system only if it is based on a version of the so-called interest rate mechanism: that is, if the interest rate drops as a response to increasing levels of saving. However, he maintains that even though the interest rate argument might be theoretically sound, it has no real-world relevance. This is, firstly, because there is no direct relationship between the level of the interest and the level of private spending and, secondly, since long-term interest rates are not determined by the monetary authorities in normal conditions. Hence, the effects of increasing levels of saving for the "complex" of all relevant interest rates and for the economy more generally are unclear at best.

"Supply creates its own demand" is Keynes's formulation of Say's law and the catchphrase now usually associated with it. What it basically says is that the economy cannot suffer from any longstanding deficiencies of aggregate demand. This was the proposition that Keynes attacked furiously in the *General Theory*. The Law came crumbling down after Keynes's treatment and economic policy was changed for the coming years. However, in the end, the Keynesian period lasted only about thirty years.

The collapse of the Keynesian hegemony had both political and intellectual origins. The stagflationary years of the 1970s together with several currency crises at the turn of the decade and the gradual weakening of the labour movement paved the way for rising anti-Keynesian attitudes. The change, however, also needed an alternative theoretical corpus that could serve as the epicentre of the rebellion in economic theory.

Nevertheless, there was no new theory that replaced the old Keynesian nostalgia. Rather, mainstream Keynesianism itself had already started to erode at the end of 1940s when Paul Samuelson (1948) presented his interpretation of Keynesianism in his hugely popular economics textbook. It was from Samuelson's reinterpretation of Keynes that the resurgence of neoclassical theory began. The shift back to a theory that mostly resembles the classical doctrine with Say's law and long run neutrality of money was a gradual and an almost unnoticeable process. Its key nodal points and consequences will be discussed next.

4.2.2 REAL BALANCE EFFECT AND THE NEOCLASSICAL COUNTERREOVOLUTION

John Maynard Keynes's key message was that wage cuts would be
unlikely stabilise an economy that had succumbed to a demand-led recession or depression. The reason was that wage cuts would only deepen the demand woes and the level of involuntary unemployment would only continue rising because in a monetary economy defined by fundamental uncertainty there would be no interest rate mechanism adjusting the economy back to the "natural" level.

Hence, Keynes was adamant in insisting that his theory is not based on wage (or any other sorts of) frictions: it was a genuinely general theory that would apply even in the quite unrealistic conditions of full wage and price flexibility. This was well-illustrated in the *General Theory* when Keynes claimed that "[t]here is, therefore no ground for the belief that a flexible wage policy is capable of maintaining a continuous full employment" and a few pages later when he concluded that "[t]o suppose that a flexible wage policy is a right and proper adjunct of a system which on the whole is one of *laissez-faire*, is the opposite of truth" (Keynes 1936, 267; 269).

However, a few years after the publication of the *General Theory*, some neo-classicists began to argue that Keynes's arguments could indeed be logical only in a context of rigid wages and (or) prices. The idea put forward by Keynes's academic nemesis Arthur Cecil Pigou (1943) – the economist Keynes treated with sarcasm and obvious contempt in the *General Theory*[77] – was later named by Don Patinkin (1956) as the real balance effect[78].

The key tenet of the real balance effect is that changes in the price level occurring as a consequence of variation in aggregate demand are finally able to stabilise total demand to a level that is consistent with price stability. The idea is that initially, the level of output sinks as a response to weakening aggregate demand. As declining demand finally leads to deflation, the real value of savings begins to increase. At some point, private sector agents are no longer in need of more real savings which leads them to either increase consumption or make new investments[79]. This increases aggregate demand and raises the level of output until the output gap[80] is finally closed. (See e.g. Pigou 1943.)

Now, if one adopts the idea of the real balance effect, the whole Keynesian edifice runs into trouble. Keynes's intention in the *General Theory* was to prove that a permanent underemployment equilibrium is possible regardless of the degree of wage and price flexibility (see e.g. Wojcik 2017, 201). His central idea was that wage cuts were not often enough to spur more investment – even though they would reduce production costs significantly – if there was not enough demand for the new commodities. Thus, from Keynes's viewpoint, it was crucial to restore the confidence of the entrepreneurs and the public in future demand conditions if the economy was to be returned to a full

[77] The background of the Keynes–Pigou controversy is well depicted in Gerhard Michael Ambrosi's "Keynes, Pigou, and The General Theory" (2009).

[78] Real balance effect is also often called Pigou effect as a refence to its original developer.

[79] A large portion of the investments would probably go to financial markets which would reduce long-term interest rates. This would obviously also spur more aggregate demand even though one might question, from a Keynesian viewpoint, whether the interest rate mechanism is particularly strong. However, the strength of the interest rate mechanism is not crucial from the point of view of the real balance effect since part of the increase in spending will always go to the real sector. Deflation just needs to continue longer if the interest rate mechanism is weaker.

[80] Output gap is the difference between the production potential and actual level of production.

employment equilibrium. What this this means is that, from a Keynesian perspective, governments can usually best secure low unemployment rates by upholding sufficient levels of aggregate demand at all times. (Keynes 1936.) However, Pigou (1943) and his followers claimed that Keynes was wrong since he ignored the effects of price level changes on the real value of money hoards. If the portion of real income hoarded depends on the inflation rate, any drop in the rate of inflation will automatically trigger a corresponding drop in money hoards until price stability is again restored.

The significance of the real balance effect comes from the fact that it changed Keynes's *general theory* into a *theory of special circumstances*. In the decades following the Great Depression, it was almost impossible to assume that the economic system would adjust to full employment equilibrium automatically. Thus, even those economists who still wanted to operate under the orthodox system had to accept that there was some merit in Keynes's demand-focused analysis. However, at the same time, they were convinced that Keynes's intention to prove the possibility (and even likelihood) of permanent underemployment equilibrium was misguided.

Paul Samuelson (1963, 332–333), for example, has explained that the reason why he objected to Keynes's original theory and rewrote the essential content of what has later become called "Keynesian macroeconomics" related to Keynes's inability to reject the real balance effect. As for Don Patinkin, he was persuaded to accept the real balance effect – even though he was initially unconvinced by it – when he concluded that there was no other mechanism that could explain the usually prevailing economic stability (Rubin 2005). Patinkin thought that Keynes's analysis was important and many of his conclusions were correct, but he was only discussing extraordinary circumstances.

The real balance effect began a true counter-revolution in mainstream economics. Some scholars used it as a proof of the complete failure of Keynesian theory (see e.g. Friedman 1968) while others began to reinterpret Keynes's theory as a mere short-term analysis (see e.g. Samuelson 1948). Those who opted for the latter option began to emphasise short run wage and price rigidities that could prevent the market-clearing[81]. However, even for the Samuelsonians, Keynesianism became a voluntary stabilisation policy that could be carried out in the short run to accelerate the economic adjustment which would happen anyway in the long run.

The idea of temporary wage and price rigidities is precisely the reason why neoclassical economists began to put so much emphasis on the difference between the short and the long run. These concepts do not refer to actual historical time but to the difference between the time period when wages and

[81] Wage rigidity-based interpretation of Keynesianism was first presented by Franco Modigliani (1944) when discussing the determination of interest rates. It was, however, Paul Samuelson who connected the wage rigidity argument to real balance effect and adjustments between short and long run positions.

prices are somewhat rigid (short run) and to the period when they are totally flexible (long run). Thus, Say's law – along with its key corollary, neutrality of money – is assumed to hold specifically in the long run whereas active fiscal policy might be efficacious in the short run.

Consequently, for the so-called freshwater mainstreamers, Keynesianism had now become outdated nonsense whereas the saltwater liberals believed that Keynesianism still had some small relevance as a temporary stabilisation instrument[82]. Nevertheless, from the end of 1960s onwards, the whole mainstream had begun to believe that the long run performance of the economy had little if anything to do with aggregate demand – and demand management was, hence, not needed in the long run.

Naturally, this led to the reinstatement of Say's law in the long run: only "real" factors like labour supply and productivity affect the level of output in the long run whereas monetary factors, like aggregate demand, play no role. This also constitutes the basis of economics behind the bond-market-power narrative. The modern textbook explanation of the long run neutrality of money begins from the long-term flexibility of prices: If prices and wages are flexible in the long run, the short-term Keynesian involuntary unemployment that was caused by rigidities disappears and full employment equilibrium is again reached (see e.g. Burda & Wyplosz 2013, 290–291). A corollary to this is that any increases in the quantity of money will have no effect on the level of output or employment in the long run. So, "money financing" of fiscal deficits necessarily leads to inflationary (and likely hyperinflationary) consequences in the long run (ibid. 141–142). The logical conclusion is that governments have to rely on bond markets for their long-term financing and central bank financing is only an illusionary option.

4.2.3 THE NEW CONSENSUS IN NEOCLASSICAL ECONOMICS

Some neo-classicists might argue that real balance effect does not play any important role in modern mainstream economic theory since the adjustment to natural GDP levels is carried out through monetary policy in the state-of-the-art theory. The background to this argument lies in the abandonment of the monetarist doctrine in the mid-1980s. Milton Friedman's (1968, 16) strong

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[82] Many mainstream economists often describe the disagreements between orthodox economists as differences between the saltwater school and the freshwater school (see e.g. Krugman 2010). Saltwater economics refers to US universities' economics departments located on the coasts of the country whereas the freshwater universities are often situated near the Great Lakes. Saltwater economists are often more centrist than their sometimes quite openly right-leaning freshwater colleagues. Saltwater economists can be seen as heirs to the Samuelsonian approach whereas the freshwater school is more inclined to the rigid anti-Keynesianism of Milton Friedman. However, the theoretical differences between these camps are limited which makes it artificial to talk about differing schools of thought. So, it might be more precise to speak about differing approaches or orientations than "schools".

conviction in the real balance effect had persuaded him to argue that policymakers should refrain from active demand management and instead concentrate only on maintaining a steadily growing money supply[83]. This doctrine, later dubbed by Karl Brunner (1968) as monetarism, became highly influential during the 1970s as the mainstream Samuelsonians were incapable of explaining the simultaneous appearance of high inflation and unemployment. The persistently high inflation of the 1970s convinced the new Federal Reserve chairman Paul Volcker to adopt the monetarist toolkit and begin to solely target money growth. Volcker's monetarist experiment, however, failed miserably. Dimitri B. Papadimitriou and L. Randall Wray (1994, 14) have described the Volcker experiment in the following words:

> *By the late 1980s no economic theory had been more thoroughly discredited than this simple monetarist theory of the relation between monetary aggregates and inflation (B. Friedman 1988). The Federal Reserve's experiment brought record interest rates. These rates contributed to unemployment rates not seen since the 1930s and negative rates of real GNP growth – the worst recession since the Great Depression. Moreover, a long list of economic maladies can be traced at least in part to the great monetarist experiment (the Savings & Loan fiasco, a bourgeoining trade deficit, record government budget deficits, and rising debt ratios of domestic firms and foreign countries).*

The monetarist experimentation was abandoned only three years after its introduction as in 1982, the Fed resorted to a variety of emergency measures that led to significant reductions in interest rates (Fazzari & Minsky 1984, 102). The monetary aggregates were conclusively abandoned in 1986 when the Fed formally dropped its money growth targets (Papadimitriou & Wray 1994, 14).

The rejection of monetarism by the central bankers led to a situation where macroeconomic theory and the actual practice of monetary policy became increasingly separated. Hence, several neoclassical scholars began to try bridging the gap between macroeconomic theory and the reality of monetary policy in the 1990s. A particularly influential contribution came from John B. Taylor (1993) who had discovered that the Fed usually responds to a one per cent increase in the rate of inflation by increasing the nominal interest rate more than one percentage point in order to raise the real rate of interest enough to prevent the economy from overheating. This way of conducting

[83] Friedman (1968) recommended a steadily growing money supply instead of a completely stable money supply. The reason seemed to be that, since productivity was improving, the system would function in the smoothest possible way if the money supply grew in relation to productivity improvements. This was not, however, relevant for Friedman's general argument because any stable monetary target could achieve more or less similar results.

monetary policy later became known as the "Taylor rule" and served as the starting point for substantial changes in neoclassical economic theory.

After Taylor's intellectual breakthrough and Volcker's monetary policy failures, orthodox scholars started to accept that central banks might have abandoned quantity targets for good and permanently moved to interest rate targeting. However, many theorists were not willing to give up the "spirit" of monetarism since it was based on the timeless axioms of the classical economic theory which also served as the basis for the neoclassical machine.

For instance, Marvin Goodfriend (2007, 53) has argued that the Volcker experiment and the monetarist theory behind it have created the basis for modern "new consensus monetary policy". Firstly, he showed that monetary policy alone can push inflation down if it is conducted aggressively enough. Thus, no regulatory measures or fiscal policy are needed to bring inflation to an optimal level. Secondly, depoliticised, or, "independent", central banks are able to enforce anti-inflationary monetary policies more effectively than democratically controlled central banks. Thirdly, Goodfriend also argued, somewhat surprisingly from an empirical viewpoint, that the Volcker shock was a proof of the unharmful real-economic consequences of "a well-timed aggressive monetary tightening".

Another way of understanding the importance of monetarism for the new consensus theory is the role that Friedman's idea of the natural rate of unemployment (or its modern equivalent, the non-accelerating inflation rate of unemployment) plays implicitly in the new consensus models. Friedman (1968, 8) envisioned the natural rate of unemployment as the unemployment rate that is consistent with price stability. If the unemployment rate goes below the natural rate, wages begin to rise at a rate that is not consistent with the expansion of capital formation and technological improvements. The end result is accelerating inflation when entrepreneurs have to respond to increasing wage pressures by raising prices which, again, creates new pressures for further wage increases. On the other hand, unemployment rates above the natural rate may cause deflationary pressures as the wage growth stagnates.

The natural rate of unemployment began to appear as a key tenet of modern neoclassical theory soon after the publications of Milton Friedman's and Edmund Phelps's seminal 1968 articles about the subject. When several theorists began to build a more general macroeconomic theory from the basis of Taylor's analysis of the Fed's actual monetary policy reactions, the logic of the natural rate of unemployment was transferred to the core of what became later known as new consensus macroeconomics (see e.g. Romer 2000; Allsop & Vines 2000).

New consensus theory is built around three equations. These equations can be presented in slightly different forms, but their key message always remains more or less the same. The following presentation of the new consensus model is based on Mark Setterfield's (2004) description of the theory's core equations. The first part of the new consensus theory is the aggregate demand equation:

(1) $g = g_0 - \beta r$

Here g stands for actual rate of growth while g_0 describes “the autonomous components of real output growth” and r denotes the real interest rate. Hence, actual growth rate consists of exogenous components (such as fiscal policy effects) and real interest rate.[84] (Setterfield 2004, 36–40.)

The second key new consensus theory element is the NAIRU (or Phillips curve) equation:

(2) $\pi = \pi_{-1} + \gamma(g - g_n)_{-1}$

In the second equation, π is the inflation rate while g_n represents the natural rate of growth – that is, the growth rate consistent with price stability. The second equation says that “any change in the rate of inflation depends on the discrepancy between the actual and natural rates of growth in the *previous period*” (ibid. 37). In practice, this equation is basically equal to the NAIRU since the reason why higher-than-natural-rate growth rates would lead to accelerating inflation is that too high growth rates generate unemployment rates below the NAIRU and, thus, lead to excessive wage growth. The argument is, hence, also very close to the classical Phillips curve story in which an inverse relationship between the unemployment rate and the inflation rate is assumed.

Finally, the third equation gives us the central bank reaction function:

(3) $r = r_{-1} + \delta(g - g_n) + \alpha(\pi - \pi^t)$

The third equation adds only one new factor to the previous equations: the central bank’s inflation target π^t. The equation describes a central bank acting on the basis of the Taylor rule. Since the difference between actual inflation and the inflation target is multiplied by the positive parameter α, the central bank must raise nominal interest rates more than the actual inflation rate has diverged from the inflation target (ibid. 53). This satisfies the Taylor principle which says that the central bank has to manipulate the real rate of interest by raising nominal interest rates more than the increase in the actual inflation rate.

Consequently, the new consensus theory includes four key statements:

[84] All Greek letters stand for different parameters of the model.

1) Actual economic growth and natural rate of growth can deviate from each other in the short run because of wage and price stickiness.[85]
2) Actual economic growth should always be adjusted to the natural rate of growth since that is the highest possible growth rate consistent with price stability.
3) The adjustment towards the natural rate can and should be carried out through monetary policy.
4) The optimal monetary policy that adjusts the actual rate of growth to the natural rate is based on Taylor-type monetary policy rules.

What is remarkable here is that in the new consensus-type New Keynesian[86] models there is no automatic adjustment to the natural rate which seems to be in direct violation with Say's law and the long run neutrality of money. As Mark Setterfield (2004, 38–39) and Mario Seccarreccia together with Marc Lavoie (2016) have argued, there is no real balance effect in the new consensus approach. Thus, on the surface it seems that according to these models, actual economic growth can be sluggish indefinitely if the central bank does not implement the needed discretionary monetary policy measures.

However, in other contexts, neoclassical economists still seem to claim that money is neutral, and the output gap is always automatically closed in the long run so that long-term economic growth is driven exclusively by supply-side factors. This is the view taken explicitly in the leading neoclassical textbooks and in all articles published in the more prominent neoclassical journals[87]. Thus, there seems to be a discrepancy between the traditional neoclassical view and the state-of-the-art new consensus approach.

Nevertheless, this discrepancy is merely superficial. Even though adjustment is conducted through discretionary monetary policy in the new consensus approach, nobody seems to deny that the adjustment towards the natural rate would happen anyway at some point. The argument is that activist monetary policy can *hasten* the adjustment that would be carried out in the long run no matter what.

The reason there is room for monetary policy at all in the new consensus theory has to do with wage and price rigidities that prevent the economy from

[85] I did not emphasise wage and price rigidities in the previous discussion of new consensus macroeconomics since these ideas were brought to these modern New Keynesian models from older Samuelsonian neoclassical theory. They, however, are at the heart of new consensus theory since the deviation from natural rates could not be otherwise explained within the orthodox theoretical approach (see e.g. Fontana 2009a, 7).

[86] Theories and models that leave room for short-term stabilisation policy are called New Keynesian in the orthodox discourse even though these approaches have very little in common with John Maynard Keynes's original theory.

[87] For a critical analysis of the modern neoclassical views about the factors driving long run growth and employment see Mitchell & Muysken (2008). For examples of textbook views about the automatic closure of the output gap in the long run see e.g. Burda & Wyplosz (2013, 288–293) and Blinder & Baumol (2011, 183).

immediately adjusting to the natural rate. However, these are only short-term problems. The point is well illustrated by William J. Baumol and Alan Blinder (2011, 183) in their celebrated textbook:

> *As the recession lengthened and perhaps deepened, more and more workers would be unable to find jobs at the prevailing "high" wages. Eventually, their need to be employed would overwhelm their resistance to wage cuts. Firms, too, would become increasingly willing to cut prices as the period of weak demand persisted and managers became convinced that the slump was not merely a temporary aberration.*

When wages and prices could again begin moving in the long run, deflation would soon emerge if the economy had been stuck with prolonged demand deficiency. Deflation, again, would activate the stimulatory side of the real balance effect and the economy would, hence, start a slow adjustment process towards the natural rate.

Hence, even though neoclassical macroeconomic theory has been reformed in some important ways, the classical idea of Say's law is still at the heart of it. Keynes's monetary theory of production led to the temporary disfavour of the neoclassical approach, but Keynesianism was soon integrated to the mainstream apparatus. First, Keynes's original theory was abandoned because it could (supposedly) offer no explanation why the real balance effect would not force the economy towards the natural rate in the long run. Secondly, Keynes's views were reduced to a mere short run stabilisation policy question by claiming that aggregate demand woes can only be caused by temporary wage and price stickiness. Thirdly, the new consensus approach has again returned discretionary economic policy to the forefront of macroeconomic theory but is has in no way changed the key tenets of the orthodox theory[88]. Growth and employment are still assumed to be supply and productivity-driven phenomena in the long run and Say's law is, thus, vindicated.

After this exposition, it should be clear that the bond-market-power narrative is a logical corollary to orthodox economic theory. However, Say's law is not present only in neoclassical economics but, ironically, also in some forms of Marxian economic theory. This might sound surprising on the surface but a more thorough look at different strands of Marxism shows that there are influential Marxist theorists who share central aspects of the closed-systems approach behind neoclassical economics. The next section will focus on this question.

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[88] Some neoclassicists, most notably Lawrence Summers and Laurence Ball, have recently insisted that aggregate demand drives output and employment also in the long run. While these views have garnered a lot of attention, they have not yet led to the development of an alternative to the new consensus framework. For Summers's and Ball's views see Rachel & Summers (2019); Ball (2009; 2014) and chapter 6.2 in this study. For a post-Keynesian analysis of the most recent developments in neoclassical theory see Lavoie (2018).

4.3 MARXIAN ECONOMIC THEORY AND THE CLOSED-SYSTEMS APPROACH

Karl Marx wrote his seminal texts in a time of intellectual ruptures and shifts. The tradition of Classical Political Economy slowly began to fade away and was gradually replaced with a positivist and nomothetical neoclassical theoretical framework. Marx appreciated much of the classical tradition and regarded himself as a reformer and finisher of the theory, but he was firmly against the early forms of neoclassical theory (see e.g. King 2017; Martins 2016, 163).

Marx divided the economic theory of his day between the "scientific" tradition of Classical Political Economy that could understand the central mechanisms of a capitalist economic system and the biased framework of vulgar economics that did not even aim at describing capitalism as it actual is but merely offered an idealised picture of a system that was to benefit everyone. Many of the vulgar economists Marx criticised, such as Jean-Baptiste Say and Nassau Senior, can be seen as forefathers of the emerging neoclassical tradition but his criticisms were not (only) about the abandonment of actual historical developments or the use of overly mathematical methods – the aspects of neoclassicism that are often presented as its distinctive features vis-à-vis Classical Political Economy. Hence, vulgar economics was more than just early neoclassical theory. It included those parts of the classical tradition that dispelled social power relations from economic theory. (Bharadwaj 1990.)

Marx's own contribution to the classical tradition was exactly the elaboration of capitalist power relations. This was carried out by four main extensions to the body of classical thought[89] (Marx 1859, 27). Firstly, Marx solved the classical puzzle of how one can measure the value of labour if all value is derived from labour. Marx made the separation between abstract labour as a source of all value and labour-power as the work contribution the employees sell for the owning class. Labour-power is a commodity whose value originates from the socially necessary labour-time needed for the reproduction of labour-power itself. (Shoul 1967, 449–452.)

Secondly, Marx (1867; 1885) suggested that the reason why the value of the capitalistically produced commodities is usually greater than the added value of labour-power needed to produce these commodities relates to the role of capital. For Marx, capital means the value of the means of production and it is divided between variable capital (labour-power) and constant capital (machines and other necessary non-labour material). Constant capital only "transfers its own value to the product, but creates no value" (Shoul 1967, 452). Capitalists try to set the wages to the lowest possible level, in other words, the subsistence level, regardless of the value of the end products. This means that

[89] The following depiction of Marx's improvements to the classical economic theory is based on Bernice Shoul's 1967 article "Karl Marx's Solutions to Some Theoretical Problems of Classical Economics".

usually workers can produce more than they are compensated for: this surplus value, along with constant capital, is the explanation for the higher-than-wages value of commodities and, thus, the existence of profits.

Thirdly, Marx (1867; 1885) also claimed that the importance of values as centres of gravitation for market prices in the capitalist system is difficult to detect because of competition. Competition leads to fluctuations in the surplus value extracted which is why market prices vary significantly. However, he assumes that competition also pushes market prices closer to production prices – that is, to a level derived from the average rate of profit and cost price of commodities used in the production – as capital moves from less profitable sectors to more profitable ones. Hence, Marx argues that competition leads to temporary deviations from values, but it also equalises profit rates between industries and thus leads to a mostly value-driven price system (Shoul 1967, 457).

Fourthly, Marx also contributed to the question of agricultural rent which had been puzzling classical economists for long as it was seemingly difficult to grasp from a labour theory of value point of view how prices "can exist without value" (ibid. 459). David Ricardo (1817, 39–50) viewed agricultural rent as a differential rent primarily determined by the difference between highest-quality land and lowest-quality land. From this perspective, the relative productive quality of land determines the agricultural rent of any specific piece of land (Kabata & Ilomäki 2018). Another aspect of differential agricultural rents is the difference between the amount of invested capital in various areas which also contributes to differences in land rents (ibid.). These aspects together form the classical differential land rent theory.

Marx (1894, 460–589) more or less accepted the Ricardian land rent theory but he added that rent prices were also derived from the monopoly power of landowners. Since Marx assumed that agriculture is labour-intensive, agricultural production could produce higher-than-average profit rates. The unusually high agricultural profit rates were safeguarded by the restricted or non-existent competition among landowners which improved their position vis-à-vis other capitalists. Thus, for Marx, "rent is the difference between the surplus value agriculture creates and the average rate of profit that would obtain if competition were completely effective in equalising profits between industry and agriculture" (Shoul 1967, 459). (Kabata & Ilomäki 2018; Shoul 1967, 457–459.)

The previous discussion of Marx's extensions to the classical theory is not more than a rough sketch of his key additions. However. what I can say from the basis of this review, is that Marx clearly positioned himself within the classical tradition but wanted to improve Classical Political Economy by focusing on economic power relations which had not been analysed by classical economists as rigorously as the questions of production and exchange.

Marx showed that classical theory can become more solid and credible if one makes the separation between labour and labour-power. This separation also explains how profits are derived in a modern capitalist system and reveals the fundamental economic and political inequalities of the capitalist system. Consequently, Marx made the classical theoretical framework both more logical and comprehensive.

However, so far little has been said here about Marx's views concerning key macroeconomic questions such as the driving forces of production and employment. These questions are particularly interesting since, as I demonstrated in section 4.1, Say's law and the consequent idea of aggregate demand adjustments towards the natural rate (be it, the natural rate of unemployment or the natural rate of growth) were not invented by neoclassical economists but by classical economists. Neoclassical economists only picked these classical theories and formalised them in mathematical models, but they clearly originated within the classical literature[90]. The question is then whether Marx also tried to overcome the classical ideas of the self-adjusting macroeconomy or whether he more or less accepted it.

Amitava Dutt (2011) has analysed the role of effective demand in Marx's writings. Dutt agrees with the often-made claim (see e.g. Shoul 1957; Foley 1985; Persky 2018) that Marx rejected Say's law. He goes on to point out that Marx attacked vigorously Ricardo's claim that no aggregate demand crises could ever emerge because the reason to produce is to be able to exchange the produced commodities into a bundle of different commodities produced by other producers (Dutt 2011, 362–363). In a Ricardian sense, there is no reason for the producer to reduce production levels since by so doing, he would also reduce his own wellbeing.

Marx rejected this view since he understood that capitalist accumulation is conducted in order to extract as much money as possible – not to collect commodities. Thus, Marx claimed that there can be realisation problems if there is not enough demand for the produced commodities. These overproduction problems may manifest themselves in the form of generalised demand crises with severe macroeconomic consequences[91]. (Ibid; see also Marx 1863, 497.)

Dutt (2011, 364–365) argues that although Marx seems to reject Say's law on the surface, his conclusions come surprisingly close to the modern neoclassical interpretation of it. As we have noted, also mainstream neoclassical theory says that aggregate demand deficiencies can occur in the

[90] Some scholars argue that a fundamental demarcation line exists between Classical Political Economy and neoclassical economics (see e.g. Martins 2016). This might be so in terms of methodology but many core theoretical claims about key causal relations in the economic system are very similar in classical and neoclassical theory. Hence, there is a break between classical and neoclassical economics when it comes to methodology and meta-theory but, when it comes to other theoretical aspects, there is a clear continuation between the approaches.

[91] Overproduction crises follow if, for instance, capitalists are able to push wages so low that there is not enough demand to buy big enough share of total production.

short run, but they will always automatically disappear in the long run. For Marx, demand crises appear always in the form of overproduction crises[92] but Marx seems to be explicit in depicting these crises as mere temporary phenomena:

> *[W]hen Adam Smith explains the fall in the rate of profit from an over-abundance of capital, an accumulation of capital, he is talking of a permanent effect and this is wrong. As against this, the transitory over-abundance of capital, over-production and crises are something different. Permanent crises do not exist.*
>
> *Marx 1905–10, 497. Cited in Dutt 2011, 364.*

It is obvious that Marx's theory must treat demand problems as secondary complications to the more fundamental obstacles relating to profitability. Otherwise it could be difficult to claim that the changes in the overall rate of profit determine also production and employment levels as these could be seen as mainly demand-driven phenomena.

However, it is somewhat unclear how Marx justified the temporary nature of demand crises. Several explanations for this have been given in the modern orthodox Marxist literature but most of them remain sketchy as Dutt (2011, 372–376) notes. I will return to the more developed and complete Marxian adjustment theories in the next subsection. The section will begin with a depiction of neo-Marxist macroeconomics that rejects Say's law also in the so-called long run. The return to orthodox supply-side centred Marxian theory was essentially a countermove to the neo-Marxist theory.

4.3.1 THE THEORY OF MONOPOLY CAPITALISM AND ITS DISCONTENTS

After the publication of John Maynard Keynes's *General Theory* in 1936, there seemed to be a brief period when Marxian economic theory did not appear to be able to offer particularly sharp or empowering analysis. It was, after all, Keynes the staunch liberal anti-Marxist[93] who could explain the eruption of the Great Depression and offer the way forward.

Marxist economists were in a difficult situation since all they could offer was a cry to battle for The Revolution. However, they could offer few reforms that were immediately implementable and instantly able to improve the lives of the poor and the working class. It was in this context when American Marxist economists Paul Sweezy and Paul Baran began to reshape Marxian macroeconomic theory.

Their starting point was Rudolf Hilferding's (1910) theory of finance capitalism. Hilferding's main claim was that the ongoing industrialisation led

[92] This point is thoroughly elaborated on Sardoni (2009).

[93] For Keynes's criticisms of Marx and Marxism see Skidelsky (1992, 517–521).

to "rising scale and capital intensity of production" which, again, impedes capital's ability to "enter and leave" different sectors (Shaikh 2016, 353). The result of all this is significantly increasing monopolisation – a phenomenon Marx never witnessed as he was writing at a time when capitalist competition was still more intensive (Hilferding 1910).

Sweezy and Baran understood that Hilferding's theory had an important corollary to the understanding of the Marxian overproduction crises. Monopolisation would lead to cartelisation, increasing corporate power and widening profit margins. Hence, workers' capacity to bargain for decent wages would continuously weaken as corporate owners could extract more and more of the productivity growth to their own pockets. (See Sweezy 1942; Baran & Sweezy 1966.)

The important change compared to Marx's original overproduction story is the advancing nature of the monopolisation process. If monopolisation continues indefinitely, there is no reason to assume that overproduction crises are merely temporary phenomena. Thus, overproduction crisis would become the endemic capitalist crisis to which all other types of crisis would be secondary. This would also mean that the capitalist economy is constantly stuck with underemployment and sluggish growth as aggregate demand problems would become nearly permanent.

Consequently, the neo-Marxists' monopoly capitalist story saved the Marxian theoretical edifice in many ways. Now Marxists could both demand the socialisation of the means of production and offer more short-term recommendations of how to boost production and employment in the current social and economic reality. Neo-Marxists were also able to challenge Keynesians on their home soil by arguing that the Keynesian ideas of steering the capitalist economy towards full employment and prosperity were unrealistic and naïve (Foster 1982, 280). Neo-Marxists believed that demand management was necessary in the capitalist system, but it could never be as efficient as Keynesians thought. Monopolisation was such a strong tendency that it could never be overcome permanently with just good fiscal and monetary policy (ibid.). Capitalism could become more effective and just with the right set of economic policies but even the best policies could not eradicate underemployment or lead to fair income distribution.

Monopoly capitalist theory achieved success after the publication of Sweezy's (1942) and Sweezy and Baran's (1966) key publications (Foster 2016). In 1972, Mario Cogoy (1987[94]) even went as far as claiming that "[neo-Marxists] appear to be the only inheritors of the tradition of Marxist political economy".

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[94] Cogoy's article was first published in French in 1972 as "Les theories neo-marxistes, Marx et l'accumulation du capital" in *Les Temps Modernes*. It was republished in English in 1987 as "Neo-Marxist Theory, Marx, and the Accumulation of Capital" in the *International Journal of Political Economy*. The above-mentioned Cogoy's quote appeared in an extended form in Foster (2016) where I first noticed it.

However, the situation began to change gradually in the 1960s with the energisation of the New Left movement that had its origins in the Soviet Union's occupation of Hungary and Britain's and France's invasion of the Suez Canal in 1956 (Hall 2010). These events led to the creation of a new revolutionary Marxist movement that wanted to distance itself from the established communist and social democratic parties and the trade unions. However, the movement began to grow rapidly only after the eruption of the Vietnam War and the rise of the countercultures in the 1960s. As a repercussion of these developments, demand for more revolutionary and anti-establishment forms of Marxism grew. Hence, orthodox Marxist scholars, like Cogoy (1987), Paul Mattick (1955) and Ernest Mandel (1967) from the "back to Marx movement"[95] of the 1970s got a lot of attention when they challenged the theory of monopoly capitalism which was often seen as surrendering to Keynesian-style social liberalism (Foster 1982; 2016).

As John Bellamy Foster (2016) has noted, the central claim of these writers was that the neo-Marxists had abandoned Marx's value theory and artificially moved the focus of Marxian economic theory to the questions of overproduction and underconsumption. For these writers, underconsumption crises were relatively rare and controllable whereas crises that stemmed from Marx's law of the falling profit rate were more fundamental and important. The tendency of the rate of profit to fall related to the increasing mechanisation and technologisation which shifts the organic composition of capital so that production needs continuously less and less labour-power relative to capital (see Marx 1894, chapter 13). This will necessarily lead to a crisis in the end since profits can be extracted only from variable capital but if its portion of total capital continually diminishes, the profits will also gradually disappear.

The newly resurrected tendency of the rate of profit to fall led to more fundamentalist theorising as the new wave of orthodox Marxian theorists referred to Marx's "countervailing tendencies" that could postpone the effects of the falling profit rate mainly by increasing the level of workers' exploitation in one way or another (see Marx 1894, chapter 14). Thus, growth rates were made implicitly dependent on falling real wages which brought Marxian theory closer to the mainstream of economics (though not still necessarily very close in absolute terms).

However, it was not only the cultural and political shifts of the 1960s that led to the rise of more fundamentalist Marxian theory. The collapse of the Bretton Woods system in 1971, oil crisis of 1973 and increasing worker militancy had created an environment in which Keynesian and neo-Marxist explanations seemed to be discredited. The consequent stagflation crisis offered the proof needed by some Marxists that demand management policies would finally fail and strong labour unions and high wage income policies

[95] This is a concept I have borrowed from Foster (2016).

could not be compatible with capitalist growth (see e.g. Glyn & Sutcliffe 1972; Boddy & Crotty 1974.)

The key problem with this type of theorising was that it could not convincingly explain why the falling profit rate-type crises were the norm and overproduction crises were only "second class crises". In mid-1970s, Raford Boddy and James Crotty offered a new way for orthodox Marxists to make their viewpoints more consistent and credible (see Boddy & Crotty 1974; 1975)[96]. They referred, yet again, to those parts of Marx's theorising that had been neglected in the debate so far. In chapter 25 of the first volume of *Capital*, Marx seemed to be suggesting that any decreases in the supply of labour would eventually lead to untenable wage demands by the workers. Boddy and Crotty (1975, 2) especially emphasised the following section in *Capital*:

> *If the quantity of unpaid labour supplied by the working class, and accumulated by the capitalist class, increases so rapidly that its conversion into capital requires an extraordinary addition of paid labour, then wages rise, and, all other circumstances remaining equal, the unpaid labour diminishes in proportion. But as soon as this diminution touches the point at which the surplus labour that nourishes capital is no longer supplied in normal quantity, a reaction sets in: a smaller part of revenue is capitalised, accumulation lags, and the movement of rise in wages receives a check. The rise of wages therefore is confined within limits that not only leave intact the foundations of the capitalistic system, but also secure its reproduction on a progressive scale. The law of capitalistic accumulation, metamorphosed by economists into pretended law of Nature, in reality merely states that the very nature of accumulation excludes every diminution in the degree of exploitation of labour, and every rise in the price of labour, which could seriously imperil the continual reproduction, on an ever-enlarging scale, of the capitalistic relation.*
>
> *Marx 1867, Chapter 25, Section 1.*

From the basis of Marx's analysis of the effects of changes in workers' bargaining power, Boddy and Crotty (1975) proceeded to creating a general theory[97] about the effects of changes in profit share on economic growth. The central observation of Boddy and Crotty was that the profit share almost always starts to decline before the end of the expansion. As Marc Lavoie (2017) has noted, Boddy and Crotty's observation was picked up soon after its publication by Thomas Weisskopf, David Gordon, Samuel Bowles and Stephen

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[96] The following interpretation of Marxian profit squeeze theory is mostly taken from Marc Lavoie's 2017 article "The Origins and Evolution of the Debate on Wage-Led and Profit-Led Regimes".

[97] Boddy and Crotty (1975) use only data from the United States but their obvious attempt is not to solely describe the peculiarities of the US economy but to give a general account of the key causal mechanisms in the capitalist system as such.

Marglin who refined it gradually into a profit-led growth model (see e.g. Weisskopf 1979; Weisskopf et al. 1985; Marglin 1984a; 1984b).

The profit-led growth model was based on a Marxian profit squeeze theory which said that expansions bring higher levels of employment which then turn into increased labour militancy and higher wage demands. Since workers' bargaining position is very strong in an era of low unemployment, employers are forced to accept trade unions' demands. This leads to higher real wages and a decline in profits. Declining profit shares decrease entrepreneurs' incentives to invest and cause growth rates to drop until unemployment rates rise enough to impose the required wage restraint.

Hence, profit squeeze theory moves Marxian economic theory back to the classical tradition and even somewhat close to the neoclassical tradition. Production and employment are not primarily dependent on the animal spirits of the entrepreneurs as in Keynes's monetary theory of production but are a function of real wages (and exogenously set productivity) as the orthodox tradition has long claimed. There is also an automatic adjustment mechanism back to "normal" (or natural if you like) growth rates through real wage cuts. Profit squeeze theory also accepts Say's law in the long run which, again, increases its resemblance to the orthodox theory.

Profit squeeze theorists have always been very explicit in the endorsement of real wage cuts and tight macroeconomic policies as Lavoie (2017, 202–203) has shown in a series of quotes from the tradition's key writers. A quote from Stephen Marglin is particularly telling. Marglin (1984b, 101) – referring to profit squeeze theorists misleadingly as neo-Marxists[98] – makes a distinction between Keynesian and profit squeeze theory in the following words:

> *The neo-Keynesian analysis leads to policies designed to stimulate investment demand or to reduce capitalists' propensity to save; the neo-Marxian model leads (in the more general case in which capitalists consume as well as save) to policies that will stimulate saving, or to policies that will reduce the subsistence wage. The first of these neo-Marxian policies is the opposite of the corresponding neo-Keynesian policy, and the second has no counterpart in neo-Keynesian theory.*

[98] As has been noted in this study, the term neo-Marxism is usually used to refer to the monopoly capitalism school of Marxian thought. Profit squeeze theory is in clear opposition to the traditional neo-Marxian theory and neo-Marxists are usually critical to this type of theorising (see e.g. Sherman 1979; Foster 1982).

4.3.2 SQUEEZING OUT THE PROFIT SQUEEZE, GETTING BACK TO MARX[99]

The profit squeeze theory became hugely popular in Marxian literature from the 1980s onwards. It formed the economic-theoretical basis of two interrelated strands of Marxian political economy: the social structures of accumulation theory and the regulation school (Lavoie 2017, 203). These schools view capital accumulation as a process that depends heavily on institutional structures organising the conditions of the class conflict (see e.g. Boyer 1990; Kotz et al. 1994). In an orthodox Marxist manner, the proponents of these approaches usually assume that wage increases finally lead to declining profit rates and consequent reductions in the incentives to invest. Thus, for some time, profit squeeze theory offered a perfect economic-theoretical justification for broader Marxian Political Economy theories.

Profit squeeze theory, hence, dominated (or, to say the least, was heavily present in) the Marxian literature in the early 1980s. However, the theory began facing significant criticism as its popularity grew. Keynes's heirs, the post-Keynesians, were especially vocal in their criticism of profit squeeze theory. They claimed that it made little difference to the dominant neoclassical orthodoxy as both argued that any deviations from the "natural" growth path could be overcome by simply enforcing wage restraint. Marc Lavoie (2017, 208–209) has highlighted especially the role of Edward Nell's 1985 attack on Stephen Marglin in the *Cambridge Journal of Economics*. Nell did not mince his words in his scornfully titled paper "Jean Baptiste Marglin". Nell was particularly critical of Marglin's implicit endorsement of Say's law:

> *Effective demand is not a matter of short-run "vagaries"; it is a matter of investment, i.e. of capital accumulation. The growth of capacity must keep in step with the growth of demand. This is the essence of the multiplier-accelerator process, more generally expressed as the capital stock adjustment principle. … [T]he fundamental proposition of the Keynesian tradition is that neither in the short run nor in the long is there any reason to suppose that this balance will be achieved at full capacity by the unregulated market, except by accident, or as a temporary phase in a cyclical movement.*
>
> *Nell 1985, 175–176.*

> *First, modern economies have clearly not been operating at anything like full capacity during the past decade and a half. Raising wages would increase demand in consumer goods markets. But, secondly, it would also increase the pressures on backward firms to modernise or go out of business, an effect that does not depend on the economy operating at less than capacity. This raises productivity, but it also leads to investment. In short, under suitable conditions raising wages*

[99] This section is to a large extent based on Marc Lavoie's 2017 article "The Origins and Evolution of the Debate on Wage-Led and Profit-Led Regimes" and reiterates many of Lavoie's original arguments.

> *may stimulate growth. ... In any event Marglin's framework, since it assumes Say's Law, cannot deal with these questions, and is forced to accept the position that austerity policies are nothing but simple "economic logic", which any rational agent must accept. Conservatives could ask no better defence.*
>
> *Ibid. 178.*

As Lavoie (2017, 209) has noted, Nell's and other post-Keynesians' criticism forced Marglin and other profit squeeze theorists into retreat. Two years after the publication of Nell's devastating critique, Amit Bhaduri and Marglin presented a revised version of Marglin's growth theory during a seminar at the Levy Economics Institute in the United States (Lavoie 2017, 209). The paper dealt with the criticisms that post-Keynesians had voiced against the first-generation profit squeeze theories and was finally published in the *Cambridge Journal of Economics* in 1990.

Its greatest improvement was that the theory was now able to take effective demand considerations seriously. This ensued from changes in the chosen investment function so that it depended on both the profit share *and* the rate of capacity utilisation (Lavoie 2017, 209). Thus, growth could be improved not by only reducing the proportion of wages but also by increasing the rate of capacity utilisation. Since the rate of capacity utilisation depends on effective demand, Bhaduri and Marglin's new theory now abandoned Say's law and moved significantly closer to post-Keynesian theory. Bhaduri and Marglin (1990, 388) were also explicit about this when they mentioned that the "left Keynesian" wage-led growth model is one viable growth strategy along with more austere export-led strategies. However, even though the left Keynesian strategy was seen by Bhaduri and Marglin as only one option, the idea that supply would create its own demand and make aggregate demand unimportant in the long run was now completely absent from the article. Employment and output were now also demand-determined in the long run. The question was only whether the best growth strategy would be to rely on domestic demand factors or export demand.

However, not all Marxists were happy to unite their theories with the theories of Keynes and his followers. This type of unification was a clear continuation of the neo-Marxist attempt to set effective-demand deficiencies as the foremost form of Marxist economic crises. As was already suggested, the monopoly capitalism variety of Marxism met with heavy criticism from more orthodox Marxists who, in the decades following the Second World War, seemed to think that the Keynesianisation of Marxian theory threatened to water down the essence of the whole theoretical edifice. There are fewer reasons to argue for the complete overthrow of capitalism if one can make it at least partly more just with incremental reforms.

The first wave of these theorists never really managed to explain why the neo-Marxist overproduction–underconsumption crises needed to be secondary to the more fundamental falling-profit-rate crises. However, after the partial incorporation of the profit squeeze theory into the post-Keynesian tradition, the original form of orthodox Marxism was revived. These anti-Keynesian Marxists had to explain why output and employment were not demand-driven phenomena in the long run since otherwise they could be improved by stimulating aggregate demand. This, again, would contradict the orthodox Marxist idea of growth and capital accumulation depending significantly on the rate of exploitation of workers. It would also enable the government to reduce unemployment and increase output through public investments, tax cuts or possibly even wage increases. So, no reductions in workers' purchasing power or living conditions might be needed if the Keynesian logic operated in every possible interval.

These second wave orthodox Marxists[100] had stronger economic-theoretical foundations than the initial critics of the monopoly capitalism school. Their aim was to tie Marxian theory more explicitly to the classical tradition (see e.g. Duménil & Lévy 1999 & 2010; Shaikh 2016). This could obviously integrate Marxian theory to a self-equilibrating and anti-Keynesian theoretical framework while at the same time placing it in the anti-neoclassical camp.

These theorists focused especially on the question of capacity utilisation. They tried to explain why the rate of capacity utilisation should always eventually converge towards some "normal" rate so that there would be very little or no room for demand stimulation in the long run[101]. Finding a credible answer to this dilemma was essential for the abandonment of more or less permanent Keynesian-style policy solutions.

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[100] Even though I am calling these scholars "second wave" orthodox Marxists, I am by no means suggesting that these researchers were younger or otherwise more junior scholars in the 1990s when this type of literature began becoming more general. On the contrary, these academics were mostly well into their fifties in the mid-1990s. Some of them had been participating since the 1970s to the initial criticisms of Keynesianism and the monopoly capitalism school (see e.g. Shaikh 1978). The point is that these researchers made a significant break from the first wave of post Second World War Marxism with their publications from the 1990s onwards even though they still continued to downplay the relevance of Keynesianism and neo-Marxism.

[101] It could be argued that the classical-Marxian analysis is in contradiction with the neoclassical idea of "logical time" which is based on the separation of the short run and the long run (for the separation between logical and historical time see Robinson 1962). In mainstream theory, short run refers to the time span where price and wage rigidities still reign whereas the long run refers to a situation where all positions have become fully adjusted. Even though classical Marxists are rarely focusing on price and wage stickiness, they share a similar understanding about the limitations of Keynesian policy with the orthodoxy. In classical-Marxian theory, Keynesian-type mechanisms may explain temporary deviations from the "normal" path but in the long run some adjustment mechanisms bring the rate of capacity utilisation back to the normal level which, again, forces the growth rate to a normal growth rate determined solely by supply and productivity factors. The narrative is similar to the neoclassical story described earlier. It is also notable that most important classical-Marxists seem to have no problem making short run–long run distinctions (see e.g. Duménil & Lévy 1999; Shaikh 2009).

The initial effort by Gérard Duménil and Dominique Lévy (1999) and a few years later by Thomas Michl (2008) to present the classical-Marxian adjustment mechanism did not succeed very well. The problem with these models was that they presented a similar adjustment mechanism to the state-of-the-art neoclassical new consensus models. In these models too, the adjustment to the normal rate was conducted through the central bank's monetary policy. This meant that the problem with these models was also the same as with the new consensus approach: if one wants to argue that demand management is not suitable for the long run, it is contradictory to argue that this long run position can be achieved and maintained only by demand management policies.

A more credible solution was offered by Anwar Shaikh in his 2009 *Metroeconomica* article "Economic Policy in a Growth Context" which can be regarded as the cutting edge classical-Marxian macro theory. Shaikh's article is extensive and has some problems with its focus, but it is still able to present an adjustment mechanism that is not based on discretionary use of either fiscal or monetary policy.

Shaikh's starting point is the idea that the actual rate of capacity utilisation must always fluctuate around the normal rate of capacity utilisation which can be seen as the optimal rate of capacity utilisation for entrepreneurs. Unit costs decrease all the time until the normal rate of capacity utilisation is reached. If capacity utilisation climbs above the normal rate, unit costs begin to increase again. Thus, in this scenario, instead of making circulating investments, firms begin to make rapidly new fixed investments that expand productive capacity but do not grow output as much as circulating investment. The reason to shift from circulating to fixed investment is to expand the productive capacity so much that the optimum (normal) rate of capacity utilisation, can again be achieved.

This means that if the savings rate decreases still after the normal rate of capacity utilisation is surpassed (for instance, as a consequence of fiscal stimulus), the level of output does grow in the short run but the long run growth declines vis-à-vis the growth rate that would have been achieved had the normal rate of capacity utilisation been maintained with a higher savings rate. Consequently, Shaikh (2009, 467–469) makes Keynes's paradox of thrift[102] only a short run phenomenon. In the long run, the orthodox idea that higher savings rates also produce higher growth rates is maintained.

In his argument, Shaikh concentrates on the situation in which capacity utilisation is above the normal rate and describes a mechanism that forces the capacity utilisation back to the normal rate. He does not clearly explain why drops in the rate of capacity utilisation would also be only temporary phenomena. If decreases in the rate of capacity utilisation could be seen to be

[102] The paradox of thrift refers to a situation in which increasing levels of savings can be beneficial to most agents at an individual level but can turn out to be harmful to the entire group of agents because of the negative effects for effective demand.

more or less permanent, the argument that actual rate of capacity utilisation always fluctuates around the normal rate of capacity utilisation, which is his key claim, would fall. Hence, Shaikh does seem to argue that there is an adjustment mechanism which will eventually force lower-than-normal rates of capacity utilisation back to the normal rate.

The only mechanism that he presents in the 2009 article or in the elaboration of the same theme in his 2016 magnum opus *Capitalism* is the idea of the endogenous business savings rate. He clearly insists that the firms' growing inducement to invest does not lead to endless growth in output because new investment always reduces the consumption and financial investment of the capitalist class that partly finances new investments through retained corporate earnings (Shaikh 2009 478; 2016, 616–618). This means that falling (rising) levels of corporate investment are significantly offset by decreases (increases) in the business savings rate. Thus, after some adjustment period, the decreasing business savings rate is enough to adjust the economy back to previous levels of output and capacity utilisation.

This mechanism allows Shaikh to establish Keynesianism as only a short-term solution while increased exploitation of labour is needed to raise long-term growth rates. In practice, this is almost identical to the neoclassical argument: Keynesianism rules the roost in the short run whereas demand management is useless in the long run and, thus, Say's law holds up again in the longer interval.

Shaikh (2009, 467–469) is explicit in his aims to describe Keynesianism as a mere short-term analysis. However, he is still at pains to argue that his own theory does not include Say's law since he wants to position himself as a critic of the orthodoxy (see Shaikh 2009, 461; 2016; 552–553). His argument seems to be that in orthodox Say's law-based theory, labour supply is the key driver of output in the long run while aggregate demand has little long-term significance. He goes on to argue that in his classical-Marxian theory this is not the case since labour supply rarely sets a limit for economic growth[103].

However, this is partly a semantic issue. Shaikh clearly agrees with the orthodoxy in arguing that the growth rate of output and the level employment are demand-determined only in the short run and demand management cannot function in the long run. This is the very essence of Say's law. From my viewpoint, it is not of utmost importance whether one arrives at the same conclusion through neoclassical or classical-Marxian mechanisms. The core conclusions of the theory remain largely the same. Essentially, both theories

[103] This is also a highly questionable claim since Shaikh (2016, 722) writes that "[f]rom a classical perspective it is possible to lower the normal rate of unemployment by reducing wages relative to productivity, either through neoliberal attacks that seek to lower the growth rate of real wages by weakening labor or through "Swedish" policies that stimulate productivity growth in excess of real wage growth". If lower levels of unemployment are connected to higher levels of output, Shaikh seems to contradict himself. In any case, it is difficult to find a purer example of supply-side analysis than this.

are forms of closed-systems theorising which argues that the economy "balances" to a certain level that can be improved only by either weakening the bargaining power of labour or somehow increasing productivity[104].

4.4 CONCLUSIONS

The key conclusions of this chapter are the following: Firstly, the bond-market-power-narrative is logical only if we accept the assumption that bond markets cannot be surpassed by financing budget deficits with central bank loans.

Secondly, the BMPN rests on a claim that stimulating aggregate demand through central bank financing is (at least usually) harmful. This is because BMPN theorists always argue that the disciplinary power of bond markets is understood to stem from the "material" structures of the world economy. Thus, a passive socialisation into dominant ways of thinking is not part of the storyline of what I call the BMPN[105]. This means that central bank financing of public deficits is perceived to have significant negative effects on what is usually understood as the "economy" or "economic": that is, production, trade and finance.

Thirdly, the assumed harmfulness of long-term deficit financing must be related to its assumed impotence of improving output and employment in the long run. Since central bank financing as such has no real-economic consequences, the only possible repercussions of such policies come from enabling deficit spending in the long run. If deficit spending could improve output and employment in the long run as well, it could hardly have significant negative consequences.

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[104] This is the "normal" case. Naturally, both theories agree that sometimes economic crises occur, and the adjustment mechanisms do not work. It is true that the classical-Marxian theory contains more systematic crisis analyses than neoclassical theory in which economic crises are usually assumed to be mere exogenous "shocks". However, the core crisis mechanism of the classical-Marxian theory, the tendency of the rate of profit to fall, is also a form of crisis that can be overcome by increasing labour exploitation –that is, by increasing labour supply (Foster 1982).

[105] Bond markets may have disciplinary powers if, for instance, the political elite has adopted the hegemonic way of understanding the possibilities and limitations of economic policy. However, this is far from the ideas that key BMPN theorists have been pushing for. It is also possible that, say, currency market speculators have adopted the idea that central bank financing of fiscal deficits is harmful and, thus, punish governments with high government deficits or debt rates. This might have negative real-economic consequences but even in this case the root cause of the problems lies in discursive factors, not in the non-discursive structures of the world economy. Further, this type of mechanism is not related on the disciplinary capabilities of bond markets but on the abilities of foreign exchange markets to punish governments. As will be argued in chapter 6, I agree that even monetarily sovereign governments are disciplined by currency markets.

Fourthly, if deficit spending is not assumed to improve output and employment in the long run, it must lead to increasing and even accelerating inflation rates. This would mean that the output gap would be automatically closed in the long run. If one continues to stimulate aggregate demand in a situation in which the economy has reached its non-accelerating inflation rate of capacity utilisation[106], the stimulus will almost necessarily lead to hiking inflation rates.

Fifthly, the BMPN, thus, must assume that there cannot be any deficiencies of aggregate demand in the long run. In other words, BMPN must necessarily accept the long-term Say's law. This also means that BMPN is based on closed-systems macroeconomics which is a concept I use to describe theories based on some assumed regularity that is vital for the inner logicality and scientific purpose of the theory. The supposed automatic balancing of growth, output and employment to a supply and productivity-determined "normal" or "natural" rate in the long run is the geo-historical regularity behind all economics relying on some form of Say's law.

Sixthly, there are two main versions of modern closed-systems macroeconomics: the neoclassical version and its classical-Marxian variant[107]. These theories come from different theoretical starting points, but they arrive at surprisingly similar conclusions – at least when it comes to the long-term determination of the level and growth of the output. BMPN is logical only if it is based on either of these theoretical alternatives or on some other theory[108] that also presents Keynesian-type theorising as applicable only to the short run.

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[106] This is the rate of capacity utilisation which is consistent with price stability. As a theoretical concept, it is qualitatively close to the NAIRU.

[107] It might be surprising for some readers to find any strand of heterodox economics in the closed-systems category. Many fundamental Marxian theories, however, contain assumptions about unavoidable regularities. For instance, Shaikh's theory is clearly based on the premise that the capitalist system includes equilibrating mechanisms forcing the actual rate of capacity utilisation to a "normal" level. Even the crisis theories presented in Shaikh's important 2016 book are rather weak and scarce. The destabilising effects of finance are hardly mentioned, and Hyman P. Minsky's financial instability hypothesis is not even mentioned in a book of 979 pages. About Shaikh's methodology and closed-systems theory see also Patomäki (2017a).

[108] Some Classical Political Economy-inspired theorists, most notably Peter Skott (2010) have presented similar theories. Skott's idea is very close to the original Marxist profit squeeze theories in the sense that he also sees increasing worker militancy as a burden on corporate profits and, thus, as an impediment for wage-led growth. Skott's models suffer from similar weaknesses as its predecessors. For the criticism of Skott models see Hein, Lavoie & van Treeck (2011, 604–605).

5 THE OPEN-SYSTEMS ALTERNATIVE: POST-KEYNESIAN ECONOMICS AND BOND-MARKET POWER

Closed-systems theorising assumes that social reality consists of permanent event regularities. Usually this appears in the assumptions that take the form “whenever X happens, then A always follows”. Say’s law, both in its classical and modern formulations, represents an ideal case of this type of theorising. The output gap is *always* assumed to disappear in the long run and aggregate demand is *always* assumed to have reached its natural (or normal) rate of growth-sustaining level in the long run.

Thus, in the orthodox theory, the level of employment is made to depend more or less exclusively on labour supply. This together with productivity and quantity of capital always determines the long-term growth rate. The system is, hence, perfectly stable and predictable in the long run. In other words, it is closed.[109]

The classical-Marxian models usually contain slightly more open-systems qualities than orthodox models but overall, they are still based on similar closed-systems logic. For instance, Anwar Shaikh’s (2009) growth model does have the Keynesian feature of growth depending on private agents’ animal spirits. The unstable and unpredictable component of the Shaikh model is, however, still restricted by the influence of the necessary adjustment towards the normal rate of capacity utilisation. This, again, makes the rate of investment depend on the level of savings and, hence, erases the Keynesian paradox of thrift. Thus, the level of output is affected by expectations but the influence of this is limited since the rate of growth is dependent on the level of savings. Strong investment boom may, accordingly, have some positive short-term effects on the *level* of output but these are offset by the negative effect that decreasing savings rate has on long-term *growth rate* of the output. This is almost identical to the orthodox position since modern New Keynesian theory also allows for the level of output to be influenced by aggregate demand in the short run while the rate of growth is determined by labour supply, productivity and the quantity of capital.

If one would abandon Say’s law, it would simultaneously mean that the current form of the bond-market-power narrative would have to be refuted too. The absence of Say’s law would mean that increasing levels of aggregate demand might have positive real-economic effects in the so-called long run. The corollary to all this is that long-term fiscal deficits could now become sustainable if they were financed through the central bank in an environment characterised by relatively strong monetary sovereignty. As I presented in chapter 2, several BMPN theorists have defined the threat of inflation (or some

[109] The orthodox viewpoint and its policy implications are clearly presented in Vartiainen (2013).

other problems that are indirectly caused by rampant inflation) to be the main obstacle to central bank financing of fiscal deficits. This impediment disappears immediately when Say's law is refuted.

One has to remember that, in this study, the concept BMPN refers to a body of thought within Political Economy that is based on a shared understanding of the *material* (that is, non-ideational) transformations of the world economy from the 1970s onwards. Therefore, BMPN does not consider performative or ideational factors to be the most important (or, at times, even relevant) in explaining the increasing disciplinary power of global bond markets.

The vast Political Economy literature on the growing influence of government bond markets does not usually discuss the artificial construction of the BMPN – and key scholars like Wolfgang Streeck are also very explicit in rejecting any suggestions about the possible influence of performative or ideational factors – but rather concentrates on depicting how the relaxation of capital controls and the crisis of the "tax state" submitted sovereign governments to the authority of the global bond markets. Hence, I consider any ideational arguments to be outside the realm of the BMPN[110].

However, the bond markets cannot possess significant disciplinary power over monetarily sovereign governments if one does not accept Say's law or some other corresponding closed-systems argument. The key point is that in a world in which excess capacity and involuntary unemployment usually characterise long run positions, central bank loans can finance government spending in all intervals without any necessary spikes in the inflation rate. I suggest that there are three counterarguments to this conclusion.

The first possible rebuttal could be based on the claim that the public would lose confidence on the currency if it knew that the government is only running the "printing press" to cover its expenses. However, this is again part of the performative-ideational storyline that is outside the scope of the BMPN if it is not backed by assumptions about the automatic adjustment to long run positions.

One could think that the public loses confidence in state money if it experiences wildly increasing inflation rates but with this assumption, we would be back again with Say's law-type theories. The other way to formulate this refutation is to assume that people just have unfounded views about central bank financing of government spending. However, this does not have much to do with the structural changes in the world economy in recent decades. So, in this case, the only reasons to fear that central bank financing could ever cause widespread erosion of public trust in the domestic currency

[110] However, this does not mean that discursive power mechanisms would not be as "real" as non-discursive mechanisms. My point is merely to say that in Political Economy there exists a strong research tradition that is based on the argument that governments are submitted to the authority of the bond markets through non-discursive mechanisms – and that this tradition (here called the BMPN) is based on several implicit and highly questionable assumptions. Arguments based on ideational power mechanisms are more convincing from my viewpoint and I do not seek to debunk them in this work.

is the existence of this belief itself. This is an extreme example of the potential power of ideas that have few grounds beyond those ideas themselves. I do believe that performativity-based causal structures exist, but they are not incorporated into the BMPN and have little to do with historical changes in the regulation of capital.

One also should remember that since the Global Financial Crisis, central banks have run huge quantitative easing operations and, thus, indirectly financed also state spending. This has not led to any widespread public panic. On the contrary, the announcement of the European Central Bank to possibly freeze the interest rates on any member state's government bonds actually stopped the acute phase of the euro crisis and significantly calmed markets[111] (see e.g. Holappa 2014b, 178). What one also has to remember is that the public can be forced to use state money – even if it dislikes it – if the state has an effective tax system and it requires tax payments in its own currency (see e.g. Wray 1998). This forces the public to collect a significant portion of its income in state money if it wants to clear its tax obligations.

The second possible counterargument is based on the political economics strand of neoclassical economics that emerged during the mid-1970s. This is the idea that *yes, in theory* governments could finance their spending through the central bank without any major problems – but *only in theory*. The argument goes that if the government funding constraints are lifted, politicians become irresponsible as they are trying to buy their re-election by either cutting taxation or spending without any limitation. Thus, if a rational government were to use central bank financing to stimulate aggregate demand as long as either low or high full employment is reached[112], a real-life government run by rational egoistic politicians would not stop at any limitation. The result would be devastating hyperinflation which would weaken almost everyone's wellbeing. This argument is clearly based on William Nordhaus's (1975) legendary theory of political business cycles which says that government politicians care only about their re-election and exploit the short-term Phillips curve to their own benefit (Dubois 2016, 235–236).

However, the Nordhaussian argument is clearly part of closed-systems theorising: a universal regularity between rent-seeking politicians and the electorate is expected to exist everywhere and in every time period. Hence, politics is understood to be a repetitive process. Such an argument cannot

[111] I am referring to the Outright Monetary Transactions programme that the ECB announced in August 2012. If the OMT programme is activated in any euro member state, the state has to submit to a set of "adjustment policies" but the ECB secures the funding of the state in return (see the European Central Bank 2012).

[112] Low and high full employment are concepts developed by Abba Lerner (1951) and which are sometimes used in post-Keynesian economics to refer to different versions of full employment. Low full employment refers to a point that can be reached without any policies that attenuate wage-push inflation while high full employment is the lowest possible level of unemployment that can be reached with the most efficient policies curbing wage-push inflation.

stand serious academic scrutiny. If politics is a process merely repeating the same "business cycle" time after time, social change should always be explained by arbitrary exogenous factors since collective human action could not explain any new or unpredictable outcomes. Nonetheless, the political economics-based rationalisation of the harmfulness of central bank financing is perfectly in line with my main argument: the assumed necessary dangerousness of central bank financing of government spending depends on a closed-systems logic.

The problems associated with the Nordhaussian argument are not related merely to its limited understanding of politics as an abstract social phenomenon. The theory also has numerous practical problems. As has been pointed out in the political business cycle literature itself, electorates also care about budget deficits and price stability and, overall, have varying ideological positions (Dubois 2016). One can come up with some information asymmetry-based arguments to try to save the original Nordhaussian argument but it is quite bizarre to expect governments to knowingly cause extreme inflation. Voters would surely punish any such government in most countries. One should also remember that the contemporary media atmosphere is usually very biased towards austere economic policies (see e.g. Barnes & Hicks 2018; Harjuniemi 2018; Harjuniemi & Ampuja 2018). It would be very risky to impose lavish spending policies in this context – especially when the public's hostility towards fiscal deficits is well documented in many countries (see e.g. Barnes & Hicks 2018; Hayo & Neumeier 2017; Motel 2015).

Another problem with the Nordhaus theory is that it does not produce the results it predicts. Countries with strongest central bank independence should achieve the lowest inflation rates if the theory is correct. An extensive study by Ed Balls, James Howat and Anna Stansbury (2018), however, shows that the real world is more complicated. While there is a clear correlation between the operational independence (the ability of the central bank to choose the instruments to achieve its goals) of the central bank and the rate of inflation, now there is no connection between the political independence of the central bank (the ability of the elected politicians to influence central bank goals and personnel) and the rate of inflation. This is in clear contradiction with the Nordhaus view.

Despite all this, it is naturally possible that some governments could use the relaxation of spending constraints to implement highly inflationary economic policies. However, it is an extreme exaggeration to say that this must be a necessary consequence of central bank financing of government spending.

The third rejection against the idea that BMPN is logical only if one accepts Say's law could be based on the criticisms other heterodox economists have laid against the neo-chartalist strand of post-Keynesianism (see e.g. Verghanini & de Conti 2017; Palley 2015). These authors have questioned the merits of neo-chartalism by claiming that most economies are constrained by the availability of foreign exchange. I tend to agree with these scholars on the importance of foreign exchange constraints, but these restrictions do not have much to do with bond-market power *per se*. If, for example, demand stimulation becomes more difficult because of limited international demand for the domestic currency, the problems are then related to demand stimulation as such – not specifically to demand stimulation that is financed through the central bank. It is entirely possible and even quite likely that central bank financing of government spending can help many governments to run higher fiscal deficits for a longer period of time even if foreign exchange restrictions might kick in at some point. This would not be due to the strengthening of global bond markets but rather due to peripheral countries' balance-of-payments constraints that have historical roots predating the rise of global finance in the 1970s. I will return to these questions in more detail in chapter 6.

Consequently, I argue that BMPN is dependent on the acceptance of Say's law-type closed-systems economic theories. By definition, open-systems-based macroeconomic theories are in a contradiction with claims founded on geo-historical regularities and it is unlikely that open-systems theorists could assume that aggregate demand deficiencies *automatically disappear* in the long run. Thus, open-systems theorists cannot make the claim that demand stimulation is categorically impossible in any possible interval. It is even difficult to make the claim that the disappearance of significant demand deficiencies is somehow *likely* in the so-called long run since, as we will see later in this chapter, the proposed adjustment mechanisms have little basis in the real world.

This does not necessarily mean that all closed-systems-based macroeconomic theories must include Say's law-type assumptions even though most of them seem to have those. One could also interpret some demand-led growth models as closed systems. For instance, the monopoly capitalism school usually assumes that stagnation is a permanent feature of modern capitalist economies (see e.g. Baran & Sweezy 1966; Foster 2014). This claim is a questionable generalisation as such and comes close to closed systems logic but it also opens space for growth theories and models that monotonously reproduce same patterns and results. If one assumes that full capacity utilisation can almost never be achieved, it is easy to arrive at conclusions that there is a linear relationship between wage growth (or more general demand growth) and the growth of the output. Indeed, this type of criticism has been directed at Kaleckian growth models that partly have roots in the under-consumptionist variety of Marxism[113] (see e.g. Skott 2017).

[113] Michal Kalecki is considered to be one of the inspirations and initial developers of neo-Marxism (Foster 1982, 260). Kaleckian growth models provide a common theoretical platform for neo-Marxists and post-Keynesians as they uphold both paradox of thrift and paradox of costs (which refers to the idea that real wage growth in the aggregate level may increase economic growth even though it is harmful from the viewpoint of an individual firm) also in the long run. Post-Keynesian Kaleckians, however, reject the idea that there are no limits for demand growth in contemporary capitalism as they emphasise

Therefore, what I am suggesting is that BMPN can be logical only in the context of closed systems macroeconomics even though there might be some variations of closed systems economics that do not justify BMPN. However, the most important conclusion is that BMPN cannot be justified from an open-systems perspective. Of course, even researchers basing their views on open-systems economics should agree that deficit spending, however it is financed, can cause severe problems if it is wrongly timed or scaled. Nevertheless, there is no geo-historical regularity that would (almost) always hold good in the so-called long run.

I have now introduced (again, one might add) the relevance of closed and open-systems macroeconomics for the justification or critique of the BMPN. The next task is to give a more detailed picture of open-systems economics and to compare its explanations and interpretations to the most influential versions of closed systems economics. Even though approaches that are based on open-systems foundations have more solid philosophical roots, as social interaction generally should not be treated as a closed system, this in itself does not guarantee that the actual open-systems theories are any better than (or even as good as) closed-systems approaches. It is easy to pinpoint bad open-systems theorising which simply gives unbelievable explanations of causal connections between different agents and structures.

There are numerous strands of economic theory that can be considered to be based on an open-systems foundation: feminist economics, evolutionary economics, some strands of Sraffian and Marxian economics and so on. However, I regard the post-Keynesian approach to be both the most fundamentally critical-realist-oriented (macro)economic theory and, more generally, the most developed alternative to the orthodox theory. Therefore, this chapter offers a post-Keynesian open-systems alternative to the closed-systems approach. I will begin by describing the foundations of post-Keynesian economic theory.

5.1 POST-KEYNESIAN ECONOMICS AS OPEN-SYSTEMS THEORY

In social sciences, schools of thought are rarely all-encompassing worldviews or comprehensive explanations of social organisation and human behaviour. However, some economic theories make exceptions. The hegemonic neoclassical school is probably the best example of a genuinely totalising perspective that does not restrict itself to merely explaining some economic phenomena, not even the entirety of phenomena usually deemed “economic”, but which aspires to explain all human interaction from the viewpoint of calculative individual decisions. Modern neoclassical economics is truly

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that economy could reach full capacity utilisation with a right set of economic policies (see e.g. Lavoie 2014, 367).

"imperialist" in its nature: it tries to explain all social interaction from the same starting point of maximising individual behaviour (see e.g. Lazear 2000). The issues under investigation can be anything from unemployment to crime and from addiction to family relations.

Most variations of Marxist social theory have somewhat similar features even though modern Marxism has mostly given up its most simplistic arguments for "class primacy". However, the fundamental conflict of the society is still between capital and labour and the most important social developments and power structures stem from the fundamental conflict in current Marxian literature too. The late Marxist sociologist Erik Olin Wright (2005, 15) summarised the standard Marxian view neatly:

> *Again, the class analysis thesis is that the rights and powers over productive assets is a systematic and significant determinant of the strategies and practices people engage in to acquire their income: whether they have to pound the pavement looking for a job; whether they make decisions about the allocation of investments around the world; whether they have to worry about making payments on bank loans to keep a farm afloat. <u>What you have determines what you have to do to get what you get</u>. Other kinds of consequences that are linked to class – voting patterns, attitudes, friendship formation, health, etc. – are second-order effects of these two primary processes.*

Post-Keynesian economics has never provided a similar all-powerful grand theory. Some critics (see e.g. Walters & Young 1997) and some post-Keynesians themselves (see e.g. Davidson 2003–2004), have thought that post-Keynesianism needs to find more coherence in order to become a viable alternative for the neoclassical paradigm. On the contrary, other post-Keynesians have endorsed the pluralism of the school and insisted that some agreement over key macroeconomic tenets is enough to form a functioning scientific community. For instance, Anthony Thirlwall's[114] (1993, 335–337) list of six key post-Keynesian claims has often been used as a definition of the whole school (see e.g. King 2002, 5–6; Alaja & Suominen 2013, 46).

According to Thirlwall, the "six central messages" of post-Keynesian theory are the following:

> 1) "[T]he level of aggregate employment and unemployment is determined in the product market by effective demand, *not* in the labour market."

[114] Thirlwall has always defined himself as a "Keynesian" with no prefixes added. This, however, seems to be a mere semantic issue as Thirlwall clearly positions himself into a broad non-mainstream Keynesian camp (see Thirlwall & King 2011). Thirlwall's key ideas, like the theory of balance-of-payments-constrained growth, are also mostly endorsed by post-Keynesians. Nowadays, the balance-of-payments-constrained growth theory is part of the post-Keynesian canon and there are no important post-Keynesian textbooks or introductory texts that would not refer to Thirlwall and balance of payments limitations.

> 2) "[U]nemployment is not all voluntary resulting from a refusal of workers to accept cuts in their real wages; that is, insisting on a higher real wage than their marginal product justifies. There can be involuntary unemployment defined as labour *willing* to work at or below the existing real wage, given the opportunity."
> 3) "[T]he act of saving (or abstaining from present consumption) does not lead to an equivalent amount of investment via changes in the rate of interest."
> 4) "[T]he existence of money, and the ability to hold it liquid, creates great uncertainty for an economy[.]"
> 5) "[T]he quantity theory of money, which lies at the heart of the doctrine of monetarism, holds only under the special assumptions that an economy is at full employment and the velocity of circulation of money is stable[.]"
> 6) "[W]hat drives a capitalist economy is the decision to invest."
>
> *Thirlwall 1993, 335–337.*

These claims can certainly be accepted by virtually all researchers calling themselves post-Keynesians. However, the principles do not constitute a theory as such. They neither interpret the social world in any organised way nor give a clear explanation of some important causal forces.

At the heart of Thirlwall's list are the two first points since they reveal the key differences in macroeconomic conclusions between the post-Keynesian view and those of its rivals. The other points are corollaries to the key conclusions presented in the first two points. For instance, if one believes that there can also be involuntary unemployment in the long run[115], one cannot simultaneously argue that saving leads to investment, since involuntary unemployment is a synonym for demand-related unemployment. If increasing saving automatically leads to increasing investment, the optimal level of aggregate demand must be reached at some point in time if there are no intervening exogenous factors. So, no demand-related unemployment can exist when all adjustments have been carried out and no involuntary unemployment is possible in the long run.

Thirlwall's list is a good introduction to key beliefs post-Keynesians hold and is a decent way to describe the political relevance of post-Keynesianism and its differences to other schools of thought. However, from a critical-realist perspective, the most important task of social theory is to reveal, describe and analyse the key mechanisms that generate the social processes the researcher is studying. Even though some results, such as the possible existence of involuntary unemployment in all intervals, might seem more credible than

[115] Thirlwall does not explicitly write about the long run in the context of involuntary unemployment but one can presume that this was in his mind, since involuntary unemployment can also occur in neoclassical theory in the short run.

competing views, the ability to generate a specific set of outcomes[116] can never be the aim of social theory, since outcomes are always institutionally and culturally situated – that is, the very "credibility" of certain outcomes depends on the currently existing institutional and cultural arrangements. For instance, if we judge a theory according to its ability to reach outcome X, which experience has deemed the most likely result, we risk making a misjudgement about the validity of the theory when intervening institutional transformations take place. After these transformations, the most probable outcome may now be Y instead of X, which demonstrates that the search for constant conjunction is not a promising starting point for social research. Certain causal conjunctions may appear to be permanent, but their resilience is caused only by a (set of) intervening factor(s).

On the contrary, if the aim of social theory is to reveal the nature and linkages of causative mechanisms, instead of just testing which factors produce observed results, the theory is also able to make changes in outcomes intelligible. Consequently, if post-Keynesianism is to be located in the critical-realist tradition, its defining features must lie in its analysis of causation – not in "safeguarding" particular results[117].

I will argue that post-Keynesian theory is built around the understanding of capitalism as a *monetary* production economy vis-à-vis the closed-systems view that does not attach a central role to money in the production system. On the contrary, especially the orthodox variant of closed systems economics argues that a monetised capitalist economy is governed by the same principles as the mythical barter system that was assumed to exist before the age of industrialisation.

More specifically, the special importance of money in the post-Keynesian theoretical edifice originates from its two core features. Firstly, the *function of money* as a store of value[118] gives rise to the potential of effective-demand deficiencies. Secondly, *the organic link* between the creation of the means of payment and the formation of new credit contracts prevents any macroeconomic adjustment through the real balance effect and entails greater instability in the production system. These two features of money separate a

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[116] The idea that theories could be judged predominantly on the basis of their ability to uphold some results is close to Milton Friedman's (1953) claim that "economic theories should not be judged by their assumptions but by their predictive implications" (see Mäki 2009, 92). Friedman's position has often been criticised by numerous post-Keynesians and other heterodox scholars (see e.g. Lavoie 2014, 13; Crotty 2013; Dow 1990).

[117] Peter Skott (2017) has raised this point in his response to Marc Lavoie's criticism of his preferred growth model.

[118] This is only one of the three functions of money in post-Keynesian thought. Money also serves the purpose of being the means of payment and a unit of account but post-Keynesian theory places special importance to its function as a store of value (see e.g. Davidson 1972). The store of value function of money is usually downplayed by neo-classicists since it does not cause similar macroeconomic instability in a framework in which increases in savings cause rises in the level of investment.

modern monetary economy from a fictitious real-exchange economy and force recurrent volatility into the economic system. Thus, from a post-Keynesian perspective, a capitalist monetary economy needs constant demand management and financial regulation and has no significant self-equilibrating qualities even in the long run.

Next, I will turn to these questions in more detail by taking a glance at the history of post-Keynesian thought. My intention is to demonstrate that post-Keynesian economics has offered a coherent open-systems account of key macroeconomic processes that define the formation of output and employment under the modern capitalist institutional setting.

5.1.1 A BRIEF HISTORY OF POST-KEYNESIAN ECONOMICS

The formation of a specific economic theory termed post-Keynesian economics has its roots in the study circle organised by Piero Sraffa to study John Maynard Keynes's *A Treatise on Money* (1930a; 1930b) at the University of Cambridge shortly after its publication. This brought together Sraffa, Joan and Austin Robinson, Richard Kahn and James Meade who formed a group of dissenting economists later to be called "Keynes's circus".

The circus provided the beginnings of the tradition that was to be initially called Cambridge Keynesianism. When the ideas of the Cambridge Keynesians spread to the United States, the tradition began to be known as post-Keynesianism[119] – a concept that illustrated the difference between the mainstream neoclassical understanding of Keynesianism and the dissenting view that wanted to replace the orthodox *interpretation* of Keynes with Keynes's original theory.

I have divided the following historical narrative of post-Keynesianism into five sections. The first part takes another look at Keynes's monetary theory of production and discusses the rise of Cambridge Keynesianism. The second part discusses how Sidney Weintraub and Paul Davidson returned Keynes's original analysis into the limelight and the third continues with Hyman Minsky's financial instability hypothesis. The fourth part takes a look at the rise of post-Keynesian endogenous money theory during the 1970s and 1980s, while the last segment digs into the rise of neo-chartalism.

5.1.1.1 Keynes and the Cambridge Keynesians

Treatise on Money can be regarded as Keynes's first attempt to offer a more systematic explanation of the failures of free market capitalism. It demonstrated why short-term recessions occur systematically in a capitalist

[119] However, as was pointed out already in the beginning of this study, the term post-Keynesianism was first used by Joan Robinson already in the 1950s. The term became fixed, at the latest, after Sidney Weintraub and Paul Davidson established the *Journal of Post Keynesian Economics* in late 1970s.

economy. Keynes even hinted at some of his more revolutionary theoretical insights which would become better known only after the publication of the *General Theory* in 1936. The most significant of Keynes's early formulations was probably the "banana plantations parable" which demonstrated that changes in planned savings would affect the levels of investment and consumption[120]. In his example, Keynes suggests that a recession induced by increased willingness to save could go on for an extended time since there are rational grounds for both the entrepreneurs and households to assume the continuation of the vicious decreased consumption–decreased investment cycle. (See Keynes 1930a, 129; 176–178.)

However, *Treatise* never fully escaped the remnants of the orthodox theory. It still operated under a framework characterised by Knut Wicksell's concept of the natural rate of interest. Thus, the conclusions that could be drawn from the banana plantations parable applied only to the short run when the interest rate mechanism had not yet been able to pull the economy out of recession (see Harcourt & Turnell 2012, 29). This all changed in the *General Theory* and Keynes's subsequent articles in which he presented his revolutionary monetary theory of production (see Keynes 1936; 1937a; 1937b).

Keynes now argued that there was no self-correcting interest rate mechanism able to restore the natural level of output or unemployment[121]. As I explained previously when discussing Keynes's influence on closed systems economics, this was due to the centrality of money in the capitalist system. If human beings make their (economic) decisions in an environment characterised by radical uncertainty – meaning that even the likelihood of most long-term phenomena cannot be reliably predicted – it is often rational to refrain from consumption or investment. The institution of money allows pure hoarding to take place: in other words, the liquidity preference of the public usually increases during the slump period (Keynes 1936).

This differs from the neoclassical view which gives no special importance to money. For the neo-classicists, money is a mere lubricant that makes transactions and life more convenient but does not alter the logic of the capitalist system in any way (see Keynes 1933). In a real-exchange economy,

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[120] The example was called the banana plantations parable because it did not describe a modern monetary economy but an economic system in which investment consisted only of constructing new banana plantations and consumption consisted of eating bananas. The parable can be seen as a prequel to the *General Theory,* but it was not nearly as complete. Keynes could show the potential negative consequences of increasing the savings rate with the banana production example but it was still somewhat unclear why the general increase in the level of thriftiness should happen in the first place.

[121] These concepts were invented only after the publication of the *General Theory*. However, Keynes (1936, 242–244) explicitly discussed and criticised Wicksell's theory of the natural rate of interest in the book. Since all natural rate theories are based on Wicksell's foundations, it is obvious that Keynes's arguments about the possibility and likelihood of less-than-full employment equilibria was basically a criticism of theories that are today called NAIRU, natural rate of growth or natural level of output theories.

saving can be conducted only in a commodity form. It is obvious that in such a fictitious system, saving could be carried out only in the form of durable goods since consumer goods would lose their (use) value quickly. However, there would be no reason to refrain from making transactions between different sorts of durable goods since their liquidity (that is, convertibility) would not, supposedly, differ drastically from each other.

All this changes in a money-using economic system. As Paul Davidson (2009, 48) has often noted, money is the “thing that government has decided will settle all contractual obligations”. This makes money the most liquid of all assets. Contractual obligations are usually defined in monetary terms which means that cash savings, unlike any other assets, can be used to settle any unforeseen payments instantly.

The effects of money hoarding in Keynes’s theory are different from the effects of the orthodox theory of saving for two reasons: Firstly, in orthodox theory, increased savings translate into interest rate reductions and the following increases in aggregate demand whereas, in Keynes’s theory, the level of savings does not determine the rate of interest (see Keynes 1936, 165–174). Secondly, the rate of interest does not govern the rate of investment similarly in the monetary theory of production as it does in a typical orthodox setting. In an uncertain environment, future demand expectations – based on the instincts of the entrepreneurs – are the primary factor driving investment (see Keynes 1936, 149–151).

The role of money as a store of value leads to possible permanent output gaps. However, the *General Theory* could never explain convincingly how money hoards would not be translated into lower interest rates and offer at least a partial self-correcting market mechanism. Nor did the *General Theory* provide much ammunition against Arthur Cecil Pigou’s (1943) real balance effect theory which was presented a few years after the publication of Keynes’s main work, and described how full employment equilibrium (or, in today’s terms, the NAIRU) would be reached automatically in the long run even in an environment defined by money contracts and fundamental uncertainty.

It was the task of Keynes’s 1937 articles in the *Economic Journal* to tackle the first of these deficiencies (see Keynes 1937a; 1937b). By doing so, the articles also laid out the foundations for a critique of the real balance effect. In his two articles, Keynes (1937a, 247) claimed that the banking system was not a mere intermediary between debtors and creditors but an institution that created fresh credit out of thin air:

> *But 'finance' has nothing to do with saving. At the 'financial ' stage of the proceedings no net saving has taken place on anyone's part, just as there has been no net investment. 'Finance' and 'commitments to finance' are mere credit and debit book entries, which allow entrepreneurs to go ahead with assurance.*

If the banking system creates money as a by-product of new credit contracts, savings clearly follow investment, not the other way around. This observation leads to two important conclusions. Firstly, it should now be obvious that there is no direct relationship between the rate of interest and the level of savings. Secondly, there is an organic link between level of credit creation and the quantity of money in circulation.

The latter conclusion has grave consequences for the viability of the real balance effect. This was picked up by Keynes's collaborator Michal Kalecki (1944, 132) in his refutation of Arthur Cecil Pigou's version of the real balance effect:

> *The increase in the real value of the stock of money does not mean a rise in the total real value of possessions if all the money (cash and deposits) is "backed" by credits to persons and firms, i.e. if all the assets of the banking system consist of such credits. For in this case, to the gain of money holders there corresponds an equal loss of the bank debtors.*

Kalecki went on to conclude that deflation – to which Pigou placed so much hope in – would only cause "wholesale bankruptcy" and "confidence crisis" as the real value of debts would increase "catastrophically". Thus, the monetary theory of production and the conclusions that can be drawn from it showed that neither the Wicksellian interest rate mechanism nor the Pigovian real balance effect would automatically stabilise a modern monetary economy. These equilibrium mechanisms could function in a hypothetical barter economy in which the means of payment would not have the function of a store of value nor would the money supply be intrinsically connected to credit creation in such a system. However, Keynes proved that these mechanisms cannot operate in the existing capitalist monetary economy.

One can draw two key theoretical-political conclusions from Keynes's theory:

> 1) The output gap is not automatically closed in any time span. There is no "long run" when the actual level of output automatically reaches the natural level, or the actual rate of unemployment reaches the NAIRU.
> 2) On the contrary, cases of full employment, maximum capacity utilisation or output gap closure happen rarely if the public authority has not installed such institutions that will guarantee continuously sufficient levels of effective demand.

However, not all Keynes's interpreters came to accept these conclusions. John Hicks's IS–LM model integrated Keynesianism to a standard neoclassical framework and opened the doors for understanding Keynes's theory as mere short run economics. Hicks's famous theory is based on the idea that the level of output is always determined at the intersection of money market and goods market curves: the demand and supply for money must coincide with the demand and supply of real goods if a certain level of output is to be realised. (See Hicks 1937.)

The money market curve, or the LM curve, presented the interest rate as a function of income (or output) whereas the goods market curve, or the IS curve, portrayed the level of income as a function of the interest rate. This aroused early criticism from Keynes's heirs, most notably Joan Robinson and Richard Kahn. They felt that Hicks's interpretation mostly sidestepped the whole question of uncertainty which was Keynes's most radical break from the orthodoxy (Harcourt & Kerr 2012, 201–202). Interest rates never had such an overdetermining role in Keynes's theory as they had in the IS–LM model. For Keynes (1936), the animal spirits were the primary driving force of investment: interest rates played a role in Keynes's thinking too – but a mere minor one.

Robinson and Kahn became ever more critical of Hicks's Keynesianism when he tried to connect Keynes's views to a Walrasian general equilibrium model (ibid.). This was a travesty from the viewpoint of Keynes's close collaborators who had always viewed Keynes's theory as a revolution in economic thinking – not only as a mere extension of neoclassical theory.

The rift between the members of Keynes's circus and Hicks laid out the foundations for a larger schism between post-Keynesianism and neoclassical Keynesianism. It became even stronger when Hicks's analysis was supplemented with the assumption of wage rigidity by Franco Modigliani in 1944 and made famous by Paul Samuelson in his textbook series. This enabled neo-classicists to argue that when the wage (and price) rigidities disappear in the long run, total output is again governed by only labour supply and productivity.

The Cambridge Keynesians, nevertheless, constructed a wholly different view of Keynes's theory: one in which total demand determined the level of output both in the short and long run. The struggle over how Keynes's theory should be interpreted, thus, created the foundations for independent post-Keynesian economic theory.

5.1.1.2 Enter Weintraub and Davidson

The Cambridge Keynesians were at pains to prove that Keynes's theory should and could be applied to all possible time spans. It was generally agreed that Keynes's analysis was valid in the short run but not generalisable to the long period which is why the core group of Cambridge Keynesians devoted most of their energy and resources to prove this assertion wrong (see Harcourt & Kerr 2012, 203–206). Thus, economic growth and other long run problems begun to dominate the Cambridge agenda after Keynes's death in 1946.

The most influential early attempts to create long-run (post-)Keynesian growth theory were made by Joan Robinson (1956; 1962) and Nicholas Kaldor (1957) – a follower of Keynes who had shifted the London School of Economics to Cambridge and quickly integrated into the circus (King 2009, 36). Robinson and Kaldor wanted to prove that long-term economic growth was determined by aggregate demand and, thus, Keynes's central message was applicable to all time periods.

They especially wanted to prove that observed "historical constancies", such as constant wage and profit shares in national income, constant capital–output ratios and constant profit rates, were compatible with fundamental Keynesian theory[122]. Kaldor's initial view was that these constancies could not be fitted together with underemployment which is why he went on to assume the achievement of constant full employment in the long run. (See Kaldor 1957, 591–594.) Joan Robinson (1962) did not make the full employment assumption but agreed with Kaldor that firms have to operate at full (or "normal") capacity in the long run: otherwise the "constancies" could not be upheld. This is quite astonishing, as one of the key points of Keynes's original theory was to claim that effective demand determined the level of output by manipulating the level of capacity utilisation (see Keynes 1936).

However, effective demand does determine the level of output in the long run in the Cambridge growth theories. The causality here does not go from investment to capacity utilisation but from investment to income distribution. The Cambridge Keynesians assumed that the share of profits was the "main regulator of the economy"[123] and that higher rate of investment would lead to higher profit shares. This is easily understood if one remembers the assumption of full capacity utilisation. Under such an assumption, increasing levels of investment will cause increases in the price level and consequent decreases in real wages and, hence, a rising profit share.[124] (Lavoie 2014, 348–359.)

Robinson (1962, 53–54) could integrate slightly more Keynesian elements into her version of the Cambridge growth theory. She allowed for structural changes in the paces of output growth and the growth of productivity, which made it possible for the level of employment to change over time. However, it is still difficult to classify even her theory as particularly Keynesian. In Keynes's thinking, when sales expectations are not fulfilled, the adjustment is made to the levels of employment and output. However, as Paul Davidson (1978, 124–125) has noted, shifts in market prices are enough to make the necessary adjustments in Robinson's growth theory. This is obviously a strikingly anti-Keynesian feature since now the (neo)classical price

[122] Here I have followed the example of Marc Lavoie (2014) and treated the Robinsonian and Kaldorian versions of the Cambridge growth theory together. The similarities between these theories are significant enough, especially for the purpose of this study.

[123] This element of the Cambridge Keynesian theory seems to come from Robinson who had been strongly influenced by Marxian theory. Robinson was a close friend of Michal Kalecki whose intellectual roots were in Marxism. She had also written an introduction to the English translation of Rosa Luxemburg's *Accumulation of Capital*. (King 2002, 49–66.)

[124] Nevertheless, the Cambridge models are stable because planned investment is made less sensitive to changes in the profit rate than planned saving. Thus, too optimistic profit expectations will lead to higher increases in the level of planned saving than in the level of planned investment until the "expectations of the entrepreneurs are fulfilled". (Lavoie 2014, 348–359.)

mechanism again rules the roost and key elements of Keynes's theory, such as uncertainty and liquidity, lose their practical relevance.

Cambridge Keynesianism began to develop closer to orthodox Marxian and Sraffian economics in which demand considerations do play a role. However, this is not because of uncertainty and money hoarding but rather because of changes in income distribution. Cambridge Keynesians had succeeded in highlighting the role of uncertainty in Keynes's theory (if only in the short run) and presenting capitalism as a demand-led economic system. This had laid the foundations for modern post-Keynesian theory that more directly followed Keynes's original framework.

The second wave of post-Keynesianism originated in the United States. Its key architects were Sidney Weintraub, who had briefly studied at the London School of Economics and had been deeply influenced by Keynes's heirs Nicholas Kaldor and Abba P. Lerner during his visit, and Weintraub's student Paul Davidson (see Weintraub 2014). Even though Weintraub (1958; 1978) made significant contributions to price theory and developed tax-based incomes policies to combat inflation, his longest-lasting influence has been the rehabilitation of Keynes's monetary theory of production. This came through the visualisation, explication and formalisation of Keynes's principle of effective demand.

Weintraub (1958, 39) placed Keynes's aggregate supply and demand model into expected sales/desired spending, employment space as evidenced in figure 1. The point of the model is to say that both the firms' expected sales and the desired spending of the public rise as employment increases. Say's law-type closed systems theorising (figure 1A) assumes that both sales expectations and spending desires increase concomitantly in the long run. However, Keynes's theory says that aggregate supply and demand functions are distinguishable and have diverging slopes. Thus, in figure 1B, the state of full employment (N^b_f) is not sustainable as sales expectations cannot be realised because of the lack of demand. The level of employment is, hence, reduced from N^b_f to N^b_1 at which point the aggregate supply and demand schedules coincide. This equilibrium point is called the *point of effective demand*.

Figure 1 Keynes's aggregate supply and demand model.[125]

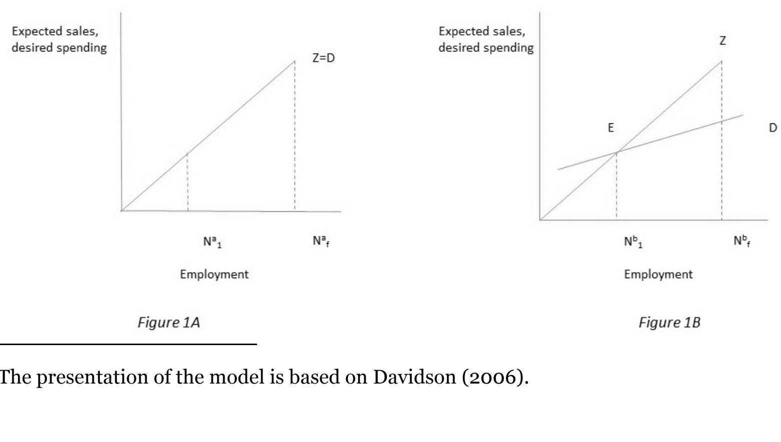

Figure 1A *Figure 1B*

[125] The presentation of the model is based on Davidson (2006).

The Z–D model, as the Keynes–Weintraub–Davidson model is usually called, shows that in the orthodox case, supply constraints are the only limitations of output growth in the long run: there is enough demand to fulfil all entrepreneurs' production wishes. However, in the Keynesian world, the economy can get stuck into an underemployment equilibrium for an undefined period.

However, it was Paul Davidson (1972; 1978) who made Weintraub's visualisations famous and added more theoretical content backing these views. Davidson's main contribution has been the revival of Keynes's original theory which has allowed him to highlight the relevance of the store of value function of money. Davidson has argued convincingly in his writings that "an increase in the desire for liquidity cannot spill over to any appreciable extent into the demand for other goods" (King 2002, 117). This is because in an uncertain world, there are rational grounds for holding a (big) portion of savings in money form. Thus, increases in savings do not automatically translate into increases in the level of investment and even if they did translate, this would not necessarily increase private spending very much. The future is uncertain and, especially during bleak times, private agents want to maintain positions that are as liquid as possible. The output and employment levels can vary significantly from time to time and a public authority is needed to guarantee sufficient levels of total demand in all possible intervals.

5.1.1.3 Hyman Minsky and Financial Instability

The lifeworks of Sidney Weintraub and Paul Davidson have helped to recover Keynes's original theory and explain it in more approachable terms. However, their own additions to the Keynesian framework have been limited. The same cannot be said about a fellow American post-Keynesian Hyman Minsky, who was one of the more important modern developers of the monetary theory of production after Keynes. Minsky (1975; 1977) by and large accepted the post-Keynesian interpretation of the *General Theory* put forward by Weintraub and Davidson. However, he extended Keynes's discussion of finance and the finance motive with his financial instability hypothesis.

While *General Theory* could eloquently explain why capitalism was prone to crises and why the most serious crises could go on for an extended amount of time, it did not provide detailed analyses of the outbreak of economic crises. Minsky's financial instability hypothesis, however, provided the missing piece. It described capitalism as a fundamentally fragile system that naturally developed continuous economic crises (see Minsky 1975; 1977; 1986).

According to Minsky (1975; 1977; 1986), the unstable nature of capitalism is related to the central role of credit in the modern capitalist system. Firms cannot usually make the biggest investments by primarily relying on their retained earnings which is why finance plays such a decisive role in modern capitalism. The problem is that the willingness and ability of the private sector to make new credit-financed investments, may vary significantly and, hence, force the economy into periods of overheating and depression.

Minsky (1975; 1977; 1986) traces the background of most financial crises into political and social psychological factors that affect bankers' lending practices over the business cycle. He envisions a development that begins after the most recent financial crisis. Initially, bankers are nervous since the previous crisis and now impose strict lending criteria. However, over the time when the economy recovers and investment projects turn out to be successful, the "memories of the previous crisis fade" and lending criteria become laxer (King 2002, 111). This leads to more fragile financial arrangements: now some borrowers are no longer able to pay back the principal. Nevertheless, they are still able to survive from interest payments which is why, in a euphoric economy of rising asset prices, bankers usually do not get very worried even if borrowers do not make substantial principal payments.

Finally, financial instability reaches its highest stage when borrowers cannot survive from either principal or interest payments. Even this type of Ponzi finance can go on for some time if asset prices keep on climbing. However, the bubble must burst eventually at some point, since there will not be enough demand for the overvalued assets. At this point, the whole economy is driven towards a Fisher-type debt deflation as private agents try to reduce their debt loads while simultaneously inflicting a demand crisis as a consequence of reduced private spending. (Minsky 1975; 1977; 1986; Fisher 1933.)

5.1.1.4 The Theory of Endogenous Money and Post-Keynesian Inflation Theory

After Hyman Minsky's study of financial instability, the second big leap in post-Keynesian theory was the endogenous money theory. Traditionally, orthodox theory has claimed that money supply is exogenous, that is, the central bank can and should determine the growth rate of the money stock.

William Baumol and Alan Blinder (2011, 221–226) give a typical example of the traditional orthodox view of the money supply: First, the central bank sets a reserve requirement, 20 per cent in this example. Secondly, the banking system receives new deposits worth 100 000 dollars[126]. Thirdly, banks must first save 20 000 dollars as required reserves before it can lend the remaining 80 000 dollars. Fourthly, the 80 000 dollars return to the banking system as the borrower deposits the borrowed money. Fifthly, these deposits can again be lent out after the removal of the required reserves (that is, 64 000 dollars can now be lent out). This multiplier process goes on as long as there are still dollars left to be lent out. Finally, the initial deposit of 100 000 dollars has been multiplied to a set of deposits worth 500 000 dollars. Hence, the central

[126] Baumol and Blinder write only about generic deposits but usually the initial deposit is understood to be the reserves that the central bank supplies to private banks.

bank has a perfect ability to control the quantity of money in circulation by regulating the supply of reserves that are deposited and then multiplied by setting the reserve requirement.

The above-mentioned money multiplier mechanism is not accurate even from a technical viewpoint: reserves and private bank money are two different things, private banks cannot "lend out" reserves and reserves do not have to be obtained before loan creation (see e.g. Ahokas & Holappa 2014b, 134–172; Lavoie 2014, 182–274; McLeay et al. 2014; Sheard 2013). Nevertheless, the exogenous money view fails also on a deeper level than this. Even the money multiplier view accepts that money is brought into the economy as a by-product of credit creation. However, they reckon that this process of credit creation can be controlled by the central bank. In reality, the central bank has no direct control over the money supply. Central banks can limit excessive money growth in some indirect ways, but they have no direct means to increase credit creation if households and firms are not willing to borrow enough money.

Consequently, if central banks cannot directly set the quantity of money in circulation, they must try to maintain price stability by managing the level of effective demand. This is usually pursued by setting the overnight interest rate at a level that is assumed to guarantee stable inflation. What one has to understand is that central banks cannot target interest rates and money growth at the same time.

Traditionally central banks have regulated interest rates primarily by administering the interbank market of reserves. Reserves are central bank IOUs needed to clear payments between all private banks. The interest rate levied on banks' customers is the interest rate paid for reserves plus some additional margin. Reserves can be obtained directly from the central bank's discount window or from the interbank market where banks with excess reserves sell them to banks that have shortage of reserves. The interbank market is the primary reserve market. (See Ahokas & Holappa 2014b, 134–172; Lavoie 2014, 182–274.)

If the central bank is satisfied with the prevailing interest rate while the demand for reserves is simultaneously growing, the central bank has no option but to fully accommodate the growing demand. This means that the central bank has to supply the demanded reserves either by supplying more reserves to the interbank market or by lending them from the discount window. If it failed to do either of these two options, the banks that need more reserves would bid up the price of existing reserves in the interbank market which would lead to increasing market rates. Hence, the central bank would lose its interest rate target. Thus, even in a theoretical sense, central banks cannot have both money growth targets and interest rate targets simultaneously[127].

[127] There are various operating systems for governing interest rates. In the corridor system that had become the standard operating system before the Global Financial Crisis of 2007–2009, central banks

Modern central banks target interest rates which is why the endogeneity of the money supply is now a well-established fact even among central bankers and financial market investors (see e.g. McLeay et al. 2014; Bindseil & König 2013; Sheard 2013).

In short, the endogenous money theory says that the quantity of money is mostly determined by the demand for credit. Credit rationing and other technical considerations of course play some role but what is at least obvious is that the central bank has no direct control over the money supply. This type of approach has existed in the academic literature for at least the last 200 years but it lost its status in the decades following the Second World War as the key tenets of the (neo)classical theory were being safeguarded by the loanable funds theory and later on by monetarism (see Wray 1990).

Endogenous money was brought to post-Keynesian theory mostly by Nicholas Kaldor and Basil Moore in a series of papers and books published in the 1970s and 1980s. The originator of the approach was Kaldor who began to develop alternative monetary theoretical views in order to counter the Chicago School's[128] growing influence in the early 1970s (see Kaldor 1970)[129]. Kaldor presented a more nuanced view of endogenous money in his 1982 book *The Scourge of Monetarism*. However, it was Basil Moore (1988) whose *Horizontalists and Verticalists* came to mark the full maturation of post-Keynesian endogenous money theory. Moore supplemented his theoretical analysis with a vast empirical and technical discussion that convinced the post-Keynesian academic community. After *Horizontalists and Verticalists*,

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pay interest rate on reserves which forces the target interest rate at some point between the deposit facility rate (interest paid on reserves) and the discount rate. A similar system is the ceiling system currently used by the European Central Bank. In the ceiling system, the central bank upholds a general shortage of reserves in the interbank market which forces banks to continuously operate through the discount window and, thus, pushes the short-term interest rates very close to the discount rate. Both systems require the central bank to accommodate the reserve demand from the discount window. If the central bank failed to do so, the corridor or the ceiling would break down and the central would lose its target interest rate. (Lavoie 2014, 218–225.)

The floor system currently in use in the United States is a reverse ceiling system where the central bank continuously upholds a system of excess reserves and, thus, pushes short-term rates towards the deposit facility rate. This system requires the central bank to constantly grow the supply of reserves at the same pace as the demand for reserves increases. If the central bank does not do this, the short-term rates move closer to the discount rate and the central bank loses its target interest rate. (Ibid.)

[128] Monetarism and many other most orthodox forms of mainstream theory have been developed in the University of Chicago after the Second World War. About the historical origins and role of the Chicago school see Van Horn & Mirowski (2009).

[129] I am aware that Joan Robinson (1956) had developed monetary theoretical views that were reminiscent of endogenous money theory already in the 1950s. However, Robinson's reflections were unconnected to her other macroeconomic theorising, which seemed to be based on an orthodox understanding of the money supply (Lavoie 1991, 264–265). Thus, even though Robinson's views might have influenced Kaldor's thinking in the 1970s, their independent influence was limited.

virtually all post-Keynesians have agreed with the endogeneity of money. There have been some debates concerning the technicalities and details of the theory but it can still be said that after Moore's seminal contribution, serious post-Keynesian theory has always included endogenous money supply.

The relevance of the endogenous money theory becomes understandable once we remember the central regulating role that interest rates play in the traditional orthodox theory. The traditional idea is that fiscal deficits crowd out private investment as the loanable funds are directed to the public sector. However, endogenous money theory teaches us that private sector is not constrained by the lack of credit as new credit money is created out of thin air and reserve requirements do not limit credit creation.

Another important corollary to the endogenous money view is that interest rates are not an automatic stabilising mechanism. If interest rates are not reduced automatically when efficient demand drops, there is no automatic stabilisation, which means that there is no obvious end point for recessions.

Consequently, the endogenous money view is fundamental to the post-Keynesian theory. The situation is rather different within the neoclassical camp. As was mentioned previously, economics textbooks still teach the traditional money multiplier theory which has little to do with institutional reality. However, the state-of-the-art new consensus view is based on the idea of (primarily) interest rate-targeting central banks – in other words, on endogenous money.

The neoclassical version of endogenous money is still based on rather different economic-theoretical premises. In the new consensus theory, central banks are virtually always assumed to follow a Taylor-type rule whereby the central bank administers the price level by raising interest rates when the actual rate of inflation exceeds the target rate and vice versa (see section 4.2.3). This is needed to hasten the adjustment towards long run fully adjusted positions. However, from a neoclassical perspective, central banks could as well select, say, a money growth target which would make the supply of central bank money exogenous.

However, the endogeneity of money is something more profound for post-Keynesians. If money supply is exogenous, then short-term interest rates necessarily become endogenous. Therefore, in a fictitious system of exogenous money, interest rates could fluctuate wildly as per changes in the demand for money. Endogenous movements in interest rates could be justified if increases in the demand for money would always be linked to changes in the inflation rate. Post-Keynesians cannot agree with such a position.

Neoclassicists view inflation as an excess demand issue while post-Keynesians maintain that inflation is mostly connected to struggles over the distribution of income. Effective demand of course affects the relative bargaining positions of labour and capital and, thus, has an indirect role in the determination of inflation but it is not the whole (or even the main) story. Other considerations, such as changing views about the fairness of income distribution or new information about income distribution between different groups, are factors that are as important for the determination of money wage growth and subsequent inflation in post-Keynesian theory. (Lavoie 2014, 541–573.)

Thus, actual inflation does not systematically follow changes in the quantity of money in circulation. In addition to the previously-mentioned factors that determine the level of inflation, also Minskyan aspects are also useful in understanding why there is not necessarily any clear causation between money growth and inflation. Increases in the demand for money must affect the productive sectors in order to influence consumer prices. Money growth may as well be directed to asset markets and cause mostly asset price inflation. For instance, this seems to have been the case with the quantitative easing policies of the 2010s (Montecino & Epstein 2015; Watkins 2014).

Hence, if there is no clear causation running from money growth to inflation, central banks cannot target money growth without simultaneously potentially causing wild turbulence in the financial and productive sectors of the economy. This is exactly what happened with the short monetarist experimentation of money growth targeting by the Federal Reserve in the 1980s (Papadimitriou & Wray 1994).

However, from the post-Keynesian viewpoint, endogenous money is just one element that reinforces the original message laid out by Keynes. Since uncertainty and the store of value function of money produce recessions and prolonged periods of underemployment, there is no automatic convergence to any natural rate even in the "long run". Hence, from a post-Keynesian viewpoint, monetary policy is not merely speeding up the adjustment that would happen eventually anyway. What endogenous money teaches post-Keynesians is that short-term interest rates are a policy variable that can be set according to various principles. Thus, there are no automatic mechanics at play in the sphere of monetary policy. Some post-Keynesians prefer a countercyclical approach to monetary policy while others support permanent zero interest rate policies supplemented with activist fiscal policies (Lavoie 2014, 234–238).

5.1.1.5 Neo-Chartalism and Monetary Sovereignty

The most recent major addition to the post-Keynesian theoretical corpus is the neo-chartalist theory of state money that began to develop gradually during the 1990s. An obvious consequence of the standard post-Keynesian theory is that fiscal deficits do not have to cause significant inflationary pressures even in the so-called long run, since there is no necessary adjustment towards any natural rates. However, governments still may not be able to implement stimulative fiscal policies if it is assumed that they have to fund their deficits by selling bonds to investors. International financiers might not be willing to lend the demanded money if they are afraid that the governments will not be able to pay back the loans. This assumption is also at the heart of the bond-market-power narrative as has been demonstrated throughout this study.

The neo-chartalists claim that monetarily sovereign governments can never be constrained by bond market investors. They usually set three criteria for effective monetary sovereignty (see e.g. Wray 1998; 2012b; Mitchell et al 2019)[130]. According to these criteria, a monetarily sovereign government:

1) must issue its own currency,
2) must have most of its debt denominated in its own currency and
3) must have a relatively flexible exchange rate arrangement.[131]

The logic is that since these governments are indebted in the currency they issue themselves, they can always meet all financial obligations. Neo-chartalists are aware that there can be "self-imposed constraints" on government spending like debt ceilings or central bank independence (see e.g. Tymoigne & Wray 2015, 25). They, however, maintain that these rules can be changed when there is enough political will.

Even though the separation between currency issuers and currency users is the most vital distinction in neo-chartalist literature, it is usually also assumed that high portions of foreign denominated debt and very rigid exchange rate arrangements may undermine the benefits that currency issuing brings about. Naturally, any government's own IOUs cannot clear commitments that are denominated in foreign currency.

However, neo-chartalists also often make the point that fixed exchange rates also undermine sovereign economic policy as they may prevent governments from running big fiscal deficits (see e.g. Wray 2012b, 148–186). Fiscal deficits quite regularly lead to weakening currencies because global investors are worried about the inflationary consequences of deficits. Hence, if a government wants to avoid changes in its foreign exchange rate, its ability to run fiscal deficits may be hampered to some extent. Nonetheless, as will be discussed in section 5.2, major currency depreciations are usually very dangerous. A favourable interpretation of neo-chartalist exchange rate views might be that the central neo-chartalist message is that some exchange rate flexibility must be allowed while too high volatility has to be curbed.

[130] To be more precise, neo-chartalists usually write about "currency-issuing governments" but a more through reading of their texts reveals that the benefits of monetary sovereignty are mostly abolished if the government runs a fixed exchange rate or has a bulk of its debt denominated in foreign currency.

[131] Another interpretation of the neo-chartalist position is that the only unambiguous criterion for monetary sovereignty is the capacity to issue own currency. In this regard, a flexible exchange rate and debt denomination in own currency are factors that increase domestic policy space but are not indispensable criteria in the same way as the status of a currency issuer vis-à-vis currency user is. The position of many neo-chartalist scholars seems to have shifted over the years in these issues. The position that monetary sovereignty is not a dichotomous category, but a spectrum is most strongly associated with the work of Pavlina Tcherneva (2016).

Neo-chartalists argue that monetarily sovereign governments can buy all products and services that are sold in their own IOUs if the government has an effective tax system. If a government accepts tax payments only in its own IOU and is able to force virtually all private sector agents to make continuous tax payments, most private actors must have an important proportion of their income denominated in the government's currency. Otherwise they could not survive their tax obligations. Therefore, there is a low risk of most private sector agents abandoning government currency if the taxation capacity of the government is strong. However, there are numerous countries where a huge section of the population pays little tax. The principles of neo-chartalism do not apply to these countries in the same manner. (See e.g. Wray 1998, 18–38.)

Moreover, another key neo-chartalist tenet is the idea that fiscal deficits necessarily include central bank money creation. Neo-chartalists like to point out that even if the government engages in deficit spending by selling bonds to private markets, the clearing of payments between private banks and the central bank is conducted in central bank money (that is, reserves). So, private agents are able to buy government assets only because the central bank has already created the necessary central bank money and credited the private accounts. (See e.g. Bell 2000; Wray 1998; 2012.)

This argument is reinforced by suggesting that deficit spending conducted through bond sales is no more inflationary than the alternative by which the central bank would directly credit the government's account. The idea is that the net financial wealth of the private sector remains exactly the same in both options and in this regard, there is no difference in the increases of private sector's willingness to spend. (See e.g. Fullwiler 2016.)

This can be understood by looking at the direct consequences of our two alternatives. In the first case, private sector loses, say 100 units of deposits but gets a government bond of the same price. The government, again, is credited with 100 units of deposits which it distributes to the private sector through various deficit spending schemes. Hence, the net financial wealth of the private sector is increased by 100 units.

In the second case, the central bank simply credits the account of the government with 100 units after which government distributes the whole sum to the private sector. Thus, the private sector has no more spending power even if governments stop issuing bonds to the private sector and use direct central bank financing instead.

Some post-Keynesians have also been critical of neo-chartalism. Many of the criticisms have been concentrated on the neo-chartalists' policy prescriptions rather than the theory itself[132] (see e.g. Palley 2015; 2019;

[132] Part of the criticism also deals with the novelty of neo-chartalism. Especially Thomas Palley (2015; 2019) has continuously argued that Old Keynesian IS–LM economics has already provided all neo-chartalism's ingredients. This line of criticism is particularly baffling as the whole post-Keynesian theoretical edifice was born as a counterreaction to IS–LM versions of Keynesianism. A more intellectual

Epstein 2019; Sawyer 2003). The idea of a buffer stock employment scheme called either job guarantee or employer of last resort has garnered a lot of criticism[133].

Even though the benefits of these policies are debatable, the contributions of neo-chartalism are substantial. If general post-Keynesian theory says that capitalist economies *need constant demand management*, neo-chartalism says that *demand management is also possible* on the condition that the government has had the opportunity and willingness to set up the right institutional framework. The point that monetarily sovereign governments need not worry very much about their debt rates might have been part of the corpus of some early post-Keynesians but that point was clearly lost for decades before the neo-chartalists again began to emphasise it in the late 1990s.

The idea that taxation drives government money has had a revolutionising influence not only on post-Keynesian theory but also on different political movements. The rising popularity of neo-chartalism (under the banner of Modern Money Theory) has attracted exceptional media attention and spurred the development of social movements that rely on neo-chartalist framework. The theoretical inputs of neo-chartalism have also been undisputable. There are quite few post-Keynesians other than Abba Lerner (1943) who had directly written about central bank financing of government spending before the rise of neo-chartalism. However, not even Lerner specifically discussed the varying degrees of monetary sovereignty and their effects on the options for governments to run fiscal deficits.

The critique of the BMPN and other stories that highlight the disciplinary power of bond markets can gain significantly by drawing from neo-chartalist scholarship. Yet, for the purposes of this study, neo-chartalism has only an additional role. It explains why the public cannot easily abandon state money even in an inflationary high-pressure setting provided that the government has an effective tax system and a monopoly on violence. I reckon that this is a secondary question since the whole policy option of central bank financing becomes unattractive from all political viewpoints if it is assumed that central bank financing of fiscal deficits necessarily causes severe inflation problems.

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line of criticism has been based on criticising the language of neo-chartalist economics as key neo-chartalists sometimes make somewhat problematic simplifications – such as “government spending must precede taxation” (see e.g. Lavoie 2013).

[133] The key point of the job guarantee is that the government (or some branch of the public sector) offers a public sector job always for every unemployed who is willing and able to work. Vacancies offered in the system would often be assistant-style minimum wage jobs from where the employees could move to a better-salaried position in the private sector. Thus, after the implementation of the job guarantee, the pool of unemployed workers would be changed into a pool of job guarantee workers. Thus, continuous full employment could be guaranteed regardless of business cycle fluctuations. (See e.g. Mitchell & Mosler 2002; Mitchell & Muysken 2008; Tcherneva 2018.)

Hence, my claim is that the heart of the BMPN is based on different versions of closed systems economics that include a version of Say's law. The whole post-Keynesian theoretical framework is needed to counter BMPN – neo-chartalism alone is not enough.

5.1.1.6 Other Post-Keynesian Viewpoints

My depiction of the key areas and developments of post-Keynesian thought might be questioned by arguing that I have described only one strand of it, the so-called Monetary Keynesianism, while mostly neglecting the contributions of Sraffians and Kaleckians[134]. This demarcation is, however, a very conscious choice. I will briefly describe the differences between Monetary Keynesians, Sraffians and Kaleckians and justify my strict focus.

Monetary Keynesianism refers to the tradition that directly draws its inspiration and approach from Keynes's monetary theory of production. Monetary Keynesians highlight the relevance of money as the vital institution of capitalism and give great weight on uncertainty and the arrangements of monetary institutions.

Sraffianism, or neo-Ricardianism if you like, is the tradition that has spurred from Piero Sraffa's criticism of marginalism in his magnum opus *Production of Commodities by Means of Commodities* (1960). Sraffa's original argument concentrated on criticising neoclassical pricing and distribution theories by suggesting that they assume unrealistically a linear connection between the wage rate and the rate of profit. He argued that because of the possibility of re-switching from one production technique to another, there is no such linear correlation (see e.g. King 2002, 90–100). Sraffa aimed at restoring the classical theory of relative prices, real wages and profit rates but his work was focused more on criticising the orthodoxy than building a coherent alternative.

Sraffa's heirs have tried to continue from where Sraffa left his work. The distinctive feature of modern Sraffianism is the idea that mark-ups in different sectors of the economy cannot deviate much from each other and competition converges all prices towards long period prices of production[135] (see e.g. Lavoie 2014, 178–181). Prices can deviate from long period prices in the short run, but competition always brings them close to equilibrium prices in the long run.

The problem with Sraffian theory is that while it is entirely possible to integrate a Keynesian theory of effective demand into it, it is somewhat artificial to do so. While Keynes's theory placed money and uncertainty at the centre of economic theory, Sraffa has not said much about these matters. Thus, Sraffianism is a form of micro-level real analysis while Keynes's theory focuses on the macro level and nominal values and monetary institutions. Keynes's

[134] This delineation of different strands of post-Keynesian thought is based Fontana (2009b).

[135] Otherwise Sraffian pricing theory is close to Kaleckian price theory as long period prices are based on target-return pricing (Lavoie 2014, 156–181).

theory and Sraffianism are, consequently, contradictory in quite fundamental ways. (See e.g. Minsky 1990.)

It is understandable from a historical viewpoint that Sraffianism has been depicted as one strand of post-Keynesianism. After all, Sraffa's role as the organiser of Keynes's original circus was instrumental. He also had a deep influence on many notable post-Keynesians, especially Joan Robinson, with his insights on capital theory. However, from a strictly academic and analytical viewpoint, I must agree with the many post-Keynesians who do not see the Sraffian approach to be compatible with the wider post-Keynesian framework (see King 1995, 246).

Kaleckianism is currently an important strand in heterodox macroeconomics based originally on the ideas of Michal Kalecki and later developed by a number of his heirs. As was mentioned previously, it is very close to, or even inseparable from, the neo-Marxist monopoly school which has emphasised the role of monopolisation as a defining feature of capitalism. Monopolisation is assumed to reduce capacity utilisation and thus the rate of growth (see Kalecki 1939). This means that there is almost always space for demand stimulation.

Kaleckian theory is significantly closer to Keynes's monetary theory of production than Sraffianism, as both approaches are macro level theories emphasising the role of aggregate demand, but Kaleckianism has many similar problems with Sraffianism. Kalecki's monetary theoretical views were also quite undeveloped and sparse, so he arrived at Keynesian-style conclusions coincidentally by using a different theoretical framework.

As Paul Davidson (2000) has suggested, Keynes succeeded in creating a genuinely general theory when he placed the focus of his theory on uncertainty and money. Uncertainty is an ontological feature of the social world while money is a defining feature of capitalism. Hence, an analysis that is based on the qualities of these factors has the ingredients of a truly general theory that can describe the limits, logics and operational boundaries of modern capitalism.

Kalecki, however, focused his theory on the degree of monopolisation which meant his theory applied mostly in cases of strong monopolisation (Davidson 2000). Kaleckian features are significantly weaker in more competitive economies. Therefore, Kaleckianism can be dismissed as a mere variant of imperfect competition economics as, for instance, Anwar Shaikh (2016, 367) has done.

At the beginning of this chapter, I referred to the much cited criticism of post-Keynesianism by Bernard Walters and David Young (1997) . Their key argument was to say that under the rubric of post-Keynesianism, there is a wide array of viewpoints that have little to do with each other. In that sense, post-Keynesianism is not a school of thought but a mere collection of perspectives that highlight the importance of aggregate demand.

However, I have dismissed this view. Historically, there are obvious connections between Keynes's school, Sraffianism and Kaleckianism but the analytical linkages between these approaches are thin at best. This is why I have narrowly focused on the research programme of the Monetary Keynesians[136]. The Monetary Keynesian approach has remained coherent and logical from the 1930s to this day. It argues that modern monetary economies cannot be analysed with tools that are suited to the analysis of barter economies. The orthodox convergence mechanisms cannot be applied to a system which is defined by uncertainty, credit-based means of payment and money hoarding.

Even though I have narrowed down my presentation to Monetary Keynesianism, I have had to make strict restrictions even within this approach. I have been able to present only those nodal points that I believe to have been crucial in the development of post-Keynesian thought. Also, some elements of post-Keynesian literature that have been neglected thus far in this thesis will be discussed in the coming sections.

My most central aim has been to give the reader a general view of the post-Keynesian theoretical apparatus so that she can understand the general open-systems nature of post-Keynesian economics. The next section will further develop this.

5.1.2 POST-KEYNESIAN ECONOMICS AND OPEN SYSTEMS

It is now widely accepted that critical realism forms the meta-theoretical basis of post-Keynesian economics (see e.g. Lavoie 2014; Fontana 2009b; Dunn 2008). There are several reasons why critical realism and post-Keynesianism are seen to be compatible, but the open-systems nature of post-Keynesian theory is probably the most obviously critical-realist element of post-Keynesian theory.

As has been mentioned several times before, closed-systems theories rely on geo-historical regularities while open-systems approaches argue that the social realm is fundamentally undetermined and shapable through conscious human action. The central role of uncertainty makes post-Keynesianism a natural part of open-systems thinking. There is no 'natural' tendency towards any long run positions in the post-Keynesian world. Uncertainty is both ontological and epistemological (Lavoie 2014, 74–76). Uncertainty concerns human beings' abilities both to analyse and predict future events, and the actual realization of those events. The latter may refer to human capabilities to reflect critically on one's behaviour and therefore change behaviour in potentially unpredictable ways.

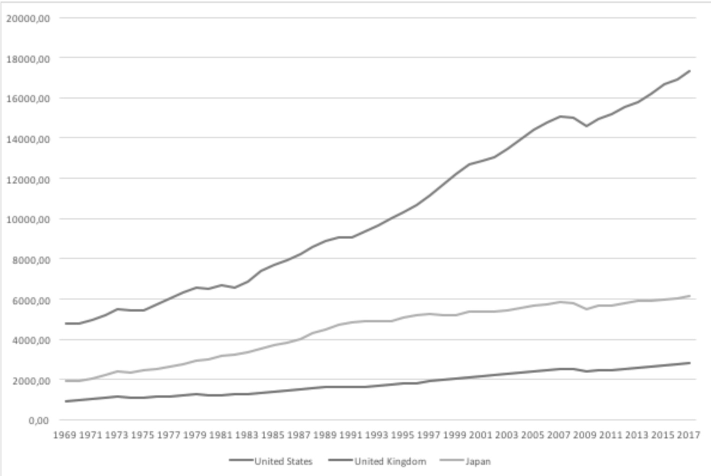
[136] However, I have avoided the narrow-tent approach of Paul Davidson (2003–2004) who seems to include only a handful of scholars in the post-Keynesian family. It is difficult to find any analytical grounds for such extreme definitions. Some scholars have suggested that there might be other reasons for Davidson's strait-laced approach. John King (2002, 113) has, for instance, discussed Davidson's hostility towards Hyman Minsky and pointed out that Minsky's "dismissive review" of Davidson's *Money and the Real World* had soured his relationship with Davidson (see Minsky 1974).

As I argued in chapter 4, the mechanisms presented in both Marxian and neoclassical variants of closed-systems theorising are very different from each other. These approaches claim that the economic system consists of involuntary forces that operate everywhere where calculative human action can be found. In practice, there are underlying logics that force the economic system back to long run positions where either capacity utilisation is back at the "normal" level or output is restored again to the "natural" level.

The differences of the approaches also concern the options provided by economic policy. If underemployment and underutilisation of the productive capacity are possible, or indeed regular, features capitalist economies, there is usually also room for active fiscal policy in all intervals. However, if capacity utilisation is assumed to gravitate around the normal rate or the output gap is expected to be automatically closed in the long run, there is no long-term fiscal policy space within the system. From the viewpoint of these approaches, economic policy has a notable long-term influence only if it changes the boundaries of the system. Hence, economic growth can be strengthened if one changes the underlying social relations of the system such as by weakening the bargaining position of labour. However, within the existing social order, macroeconomic outcomes are always predetermined and fiscal policy has only short-term significance.

Nevertheless, there is one remaining issue. If post-Keynesians argue that there is no adjustment towards long period positions and booms and busts can occur wildly in capitalist economies, how is the relative stability of capitalist economies to be explained? As figure 2 presents, the GDPs of the leading capitalist economies grow quite firmly. There are some notable drops but no constantly restless fluctuations. From the surface, the data certainly seem to back the closed-systems approach.

Figure 2 GDP (billions of constant 2010 USD) in the United States, the United Kingdom and Japan 1969–2017. (Source: World Bank.)



However, there are a number of post-Keynesian growth theories and models that explain the ostensibly stable actual growth paths (see Lavoie 2014, 347–455). The theory that I have found most convincing is Steve Fazzari, Piero Ferri and Anna Maria Variato's (2018) recent model that gives special importance to autonomous components of aggregate demand[137]. The model is particularly attractive because it is compatible with Keynes's uncertainty-based theory of effective demand and does not need to be supported by overly optimistic Verdoorn-type mechanisms[138].

Fazzari and his co-authors argue that a large chunk of aggregate demand is actually autonomous, that is, it does not oscillate in tandem with the domestic business cycle. For instance, government spending does not usually fluctuate pro-cyclically with the business cycle. Also, an important part of consumption as well as big portions of imports and exports should be seen as autonomous spending. Different parts of autonomous spending grow at different rates, but the varying rates can be understood to create a general growth rate of autonomous spending. This rate serves as the basis of general demand growth. (Fazzari et al 2018, 10.)

Another way to think autonomous demand is to interpret it as the floor to the point of effective demand (ibid. 10–11). This might be especially useful if it

[137] The model is so recent that no published version of it has, at the time of writing this, yet appeared. However, an earlier, less developed, version from the same authors was published in the *Review of Keynesian Economics* (see Fazzari et al. 2013).

[138] The Verdoorn effect is a mechanism that highlights the causal connection between output growth and productivity growth and, thus, diminishes supply constraints if it is assumed to be high (see e.g. King 2010). The dismissal of supply constraints in post-Keynesian growth models has been discussed by Peter Skott in a number of papers (see e.g. Skott 2017).

is assumed that public spending acts as a strong countercyclical automatic stabiliser. If we take this view, the level of output can be expected to gravitate between the floor set by autonomous demand and the ceiling set by labour supply constraints and inflation targeting central bank (Fazzari et al. 2013; 2018). If the floor is sufficiently high and the ceiling sufficiently low, one can easily see how a quite stable growth rate emerges even though growth was, at the same time, demand-determined and uncertainty and financial instability were fundamental elements of the system.

The policy conclusions of Fazzari et al. (2018, 29–31) are intriguing. The apparent stability of the growth rate is a mere surface phenomenon. Hence, as the critical realists would put it, it is not a geo-historical regularity but a mere demi-regularity that disappears when existing policy conventions are dropped. Fazzari and his co-authors do not assume any traditional "fully adjusted" or "equilibrium" positions, but merely the existence of certain institutionally-backed growth paths (see Fazzari et al. 2018). Thus, in a Fazzarian world, even "long-term" economic growth is demand-determined and can be increased with a laxer fiscal stance.

There are supply-side limitations in the Fazzari et al. (2018) model but what is important is that there is no automatic convergence towards zero or near zero output gap. Consequently, involuntary unemployment and excess capacity are assumed to be general features of a capitalist economy. The corollary is obvious: capitalist economies are open systems that are sensitive to fiscal policy decisions.

5.1.3 POST-KEYNESIAN THEORY AND THE CRITIQUE OF THE ADJUSTMENT MECHANISMS

The existence of stable growth paths can be easily accommodated with open-systems-based post-Keynesian theory as was explained in the previous section. There are two alternative explanations for steady growth paths. The closed systems approach is based on the idea of fully adjusted positions. This view entails that there are no long run macro level demand shortages. The adjustment mechanisms described in chapter 4 ensure that optimal level of aggregate demand is always realised in the long run.

The Monetary Keynesian open-systems view relies on the idea of path dependence: stable production structures and economic policy institutions provide at least somewhat steadily growing autonomous demand that forms the basis of the stable growth path. However, there are no fully adjusted positions in the Monetary Keynesian system: there can be significant underutilisation of capacity and continuous underemployment. Consequently, active fiscal policy can have a major influence on total production and unemployment in the open-systems alternative whereas it is usually deemed to be quite ineffective in the closed systems view[139].

There is no controversy over the short-term effects of rising total demand: virtually all schools of economic thought believe that capitalist economies are demand-led as long as there is significant underemployment and spare capacity. The only issue is whether there are automatic forces that will dispel any major demand deficiencies in the long run.

This section will tackle the question from two perspectives. Firstly, I will take a look at the adjustment mechanisms that major schools of thought have put forward. I will analyse the proposed adjustment mechanisms both from theoretical and empirical viewpoint. Secondly, I will briefly discuss the case of hyperinflation since hyperinflation or otherwise extremely high inflation is something that especially neoclassical scholars usually assume to happen if demand stimulation is continued in the long run with the assistance of the central bank.

5.1.3.1 The Case Against Adjustments

It is usually perceived that the adjustment towards long run positions is carried out by monetary policy in the state-of-the-art neoclassical macro theory. However, as I have argued in chapter 4, this is only tells half the truth.

It is true that the modern new consensus models include a central bank reaction function. So, at a superficial level, it is exactly the activist monetary policy that closes the output gap. However, if it is accepted that demand stimulation is needed to close the gap, key neoclassical macroeconomic assumptions will fall. For instance, the traditional Solowian growth model suggests that growth depends solely on the growth of capital, labour supply and productivity (see e.g. Foley & Michl 2009). Demand has no major role in this model nor in the newer neoclassical growth theories (ibid.). This is not surprising since long run Say's law and long run neutrality of money are key postulates of the neoclassical theoretical framework (see chapter 4). These axioms, by definition, mean that aggregate demand cannot affect the level of output or employment in the long run. Consequently, in the state-of-the-art New Keynesian theory, monetary policy is best understood to hasten the adjustment that would occur in any case in the long run. It merely minimises short-term welfare losses and is not vital for the closure of the output gap *per se*.

[139] Many orthodox economists would say that fiscal policy is ineffective in the long run. However, even some orthodox economists emphasise the "long run consequences" of short run fiscal policy (see e.g. Ball 2009). They refer to hysteresis-style effects through which short-term drops in the level of employment may have long-term effects such as weakening the work ability of the unemployed. This brings the orthodox argument closer to the post-Keynesian case, but differences are still significant. Hysteresis is a restricted phenomenon that shifts the long run fully adjusted position to a slightly different level, but it does not prevent the adjustment *per se* from taking place.

As was pointed out in chapter 4, the reason demand deficiencies might occur in the dominant New Keynesian framework relates to wage and price stickiness which is assumed to exist only in the short run. Thus, when the price mechanism begins to function smoothly in the long run, also aggregate demand problems disappear.

The problem is that Fisher (1933), Keynes (1936) and Minsky (1975) had already proved that demand crises may occur even if one assumes full price and wage flexibility. The entrepreneurs cannot know whether their production is sold, even at lower prices if households' willingness to save keeps on rising. Thus, they often have to cut production and employment even if workers agreed to sizable wage cuts. This process is reinforced by the threat of debt deflation: entrepreneurs cannot be content with stable real income since their debts are denominated nominally.

Consequently, the only remaining neoclassical adjustment mechanism is the real balance effect. As was mentioned previously in this chapter, the problem with real balance mechanism is that it is hard to reconcile with a credit-based monetary system. Even if the real value of money savings increases in deflation, the real value of debts increases too. Thus, firms are incentivised to pay back existing loans and avoid making new credit-financed investments.

Real balance effect can really function only if the demand-increasing effects of deflation outweigh its demand-suppressing effects. This could happen if rises in the level of consumption more than offset the decreases in the level of consumption due to deflation. However, it is a well-known introductory-level fact that investment varies significantly more than consumption from year to year (see e.g. McEachern 2016, 198–199). There is also robust evidence which suggests that there is a clear causation from private credit flows to economic growth. This has been detected in a number of empirical studies – both post-Keynesian and neoclassical (see e.g. Bezemer & Chang 2014; Bezemer et al. 2016; Stockhammer & Wildauer 2016; Puente-Ajovin & Sanso-Navarro 2015; Arcand et al. 2015; Mbaye et al. 2018). Thus, there is a strong connection between the level of credit-financed investment and the rate of growth[140].

All this suggests that the real balance effect is not enough to bring the economy back to a long run fully adjusted position. This view is supported by empirical studies about the size and role of the real balance effect. John Caskey and Steve Fazzari (1992) found that the destabilising effects of lower inflation dominated the stabilising effects in their United States-centred study. Similar

[140] There are some disagreements over the details. For instance, some of the studies emphasise that very high levels of private debt may become a burden for economic growth – especially if the high debt rate reflects a growing indebtedness of financial corporations (see e.g. Bezemer et al. 2016). However, these results in no way contradict the issue at stake here: a high enough share of total investment is credit-financed, so that changes in the indebtedness of non-financial corporations have important effects on the growth of output.

results were reported by Robert Ley and Tom Cate (2013, 569) in their survey of empirical studies about the real balance effect.

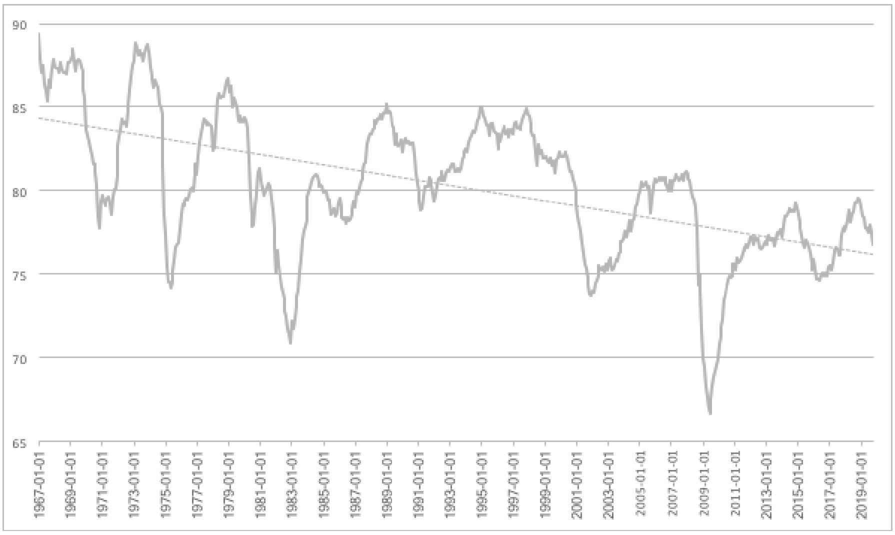
Consequently, there are few grounds for believing that real balance effect could play a major stabilising role in a modern monetary economy. The only remaining adjustment mechanism (at least one that is somewhat established) is the one provided by Anwar Shaikh (2009; 2016) in his classical-Marxian macro theory. As I demonstrated in sub-chapter 4.3.2, Shaikh's theory relies on an endogenous retention ratio which always brings the actual rate of capacity utilisation back to the "normal rate". The problem with Shaikh's mechanism is that at best, it is able to moderate "fluctuations of the rate of utilisation away from its normal value, but it is unlikely to bring it back there" (Lavoie 2014, 395).

There are several reasons for this. Firstly, as mentioned earlier, the rate of investment is significantly more prone to changes in the level of total income than the rate of consumption. Secondly, the marginal propensity to consume is significantly higher for poorer households while wealthier households with substantial financial wealth do not typically respond strongly to increases in income or wealth[141]. Thirdly, even if the business savings rate decreases during recessions, the mass of dividends certainly goes down too (Zhu 2016). It is difficult to argue that endogenous changes in the business savings rate are enough to balance the economy back to any "normal" rate of capacity utilisation which was Shaikh's initial attempt.

However, the question is finally an empirical one. There are differences in the historical patterns of capacity utilisation in different economic areas, but it is wrong to argue that a convergence towards the normal rate would always happen. For instance, as figure 3 demonstrates, there is considerable variation in the rate of capacity utilisation while the trend is clearly tending downwards in the United States in recent decades:

[141] For a survey of empirical studies about the marginal propensity to consume (see e.g. Carroll et al. 2014).

Figure 3 Seasonally adjusted capacity utilisation (total industry, % of capacity) in the United States, 01/01/1967–01/10/2019. (Source: Federal Reserve.)



If adjustment towards a normal rate of capacity utilisation is a permanent feature of capitalist economies as Shaikh and some other fundamental Marxists claim, the actual rate of capacity utilisation should not have trended downwards historically[142]. The argument that there are strong self-adjusting mechanisms in the macroeconomy stands on weak grounds.

5.1.3.2 Post-Keynesian Economics and Bond Markets: A Recapitulation

The bond-market-power narrative includes the occasionally hidden assumption that even monetarily sovereign governments cannot bypass bond markets by relying on direct central bank financing of fiscal deficits. The reason for this is that government spending financed by the central bank is usually expected to be extremely inflationary in the long run – potentially even hyperinflationary. If generally accepted, this is the very supposition that forces governments issuing their own currency under the discipline of bond markets[143].

[142] Michalis Nikiforos (2016; 2019) has pointed out that the Fed's capacity utilisation data are not best-suited for analysing historical changes in the rate of capacity utilisation. Nikiforos instead employs the average workweek of capital data to assess historical trends in capacity utilisation. The results are even clearer when such methods are used: there is little grounds to argue that the actual rate of capacity utilisation would fluctuate around a normal rate.

[143] For the explanatory power of ideas in social-scientific research see e.g. Schmidt (2008).

There are several theoretical structures that may justify the bond-market-power narrative. However, BMPN must always rely on the assumed universal law that central bank financing leads to catastrophic real-economic consequences in the so-called log run. I have argued that there are two main traditions propagating this view: neoclassicism and classical Marxism.

One could make the point that classical-Marxian economics is not anything close to neoclassicism – neither in terms of the social status of the theory nor in its theoretical claims. I tend to agree with these notions, but the approaches still share many similar features. I will deal with the latter suggestion later in this section when I demonstrate that there are important similarities between neoclassical and classical-Marxian economics.

The point that classical-Marxian economics is so obscure and irrelevant that it cannot be categorised as a "main tradition" of economic theory is more complicated. Classical-Marxian theory, nonetheless, has a long tradition even though its popularity cannot be compared to mainstream economic theory. What is more important is that many BMPN scholars are rather averse to neoclassical theory and have sought inspiration from other traditions of Marxism. Nevertheless, not all traditions of Marxism are compatible with the BMPN. For instance, the neo-Marxism of Paul Sweezy, Paul Baran, John Bellamy Foster and various other monopoly capitalism theorists cannot serve as a justification for hyperinflation fears. The more orthodox forms of Marxian theory – the ones that see only restricted short-term benefits from Keynesian policies – offer justification for the storylines that associate long-term fiscal deficits with difficult inflation problems.

I do not claim that either neoclassical or classical-Marxian theory have directly influenced the political economists who have presented BMPN-type arguments. It does not have to be the case that political economists are consciously replicating either neoclassical or classical-Marxian viewpoints. These views can also be understood as reified ways of thinking – and the acceptance of reified ideas is rarely an active process.

However, I am not even aiming to explain the elaborate ways orthodox economic-theoretical views have found their way into Political Economy. I am rather trying to make a generous interpretation of BMPN-based Political Economy studies. In other words, I have tried to find established economic-theoretical traditions that can legitimate the crucial necessary assumption of the BMPN, that is, the general destructiveness of direct central bank financing of government spending (at least in the long run). Without these types of theoretical structures, the BMPN loses its validity as it could be pointed out that bond markets can only discipline governments with weak monetary sovereignty.

There are two versions of the neoclassical argument against central bank financing of fiscal deficits. Probably the less common and slightly more unstructured argument refers to the willingness of elected politicians to rig the economy by boosting aggregate demand irresponsibly in order to secure their re-election. The more nuanced and more textbook-type neoclassical argument is based on the idea that in the long run all involuntary unemployment will disappear and the output gap will automatically close as price and wage stickiness vanishes. Both arguments are clear examples of closed-systems theorising even though the exact mechanisms are different: the whole idea of adjustment towards long run positions relies on some assumed universal regularity that cannot be relaxed without overturning the whole theoretical structure.

The classical-Marxian mechanism is very close to the more nuanced neoclassical argument. It is based on the debate between post-Keynesians and more fundamental Marxists that has persisted from the 1970s onwards. Classical Marxists have usually argued that firms' investment behaviour is dictated by the expected profit margin which, again, depends heavily on the actual wage level. Post-Keynesians have typically refuted this idea as they have argued that with rising effective demand, and rising wages, the rate of capacity utilisation rises, and higher aggregate profits are due. Thus, whenever there is room for important increases in the rate of capacity utilisation, demand stimulation can be efficient and mostly non-inflationary.

To safeguard their theoretical perspective, the classical Marxists have needed to argue that capacity utilisation automatically balances to some normal rate in the long run. Otherwise the actual rate of capacity utilisation could be at any point in any period and there would consequently be little grounds to argue that demand stimulation is only relevant in the so-called short run.

If one assumes the automatic adjustment towards normal rates of capacity utilisation, fiscal deficits are automatically counterproductive in the long period, as there can be no shortage of effective demand and above-normal-rates of capacity utilisation quickly translate into inflation. Thus, it is not surprising that Anwar Shaikh (2016, 723), the leading proponent of classical-Marxian economics, associates hyperinflation with "the creation of new purchasing power".

Post-Keynesian economics offers a different take on the opportunities for governments with relatively strong monetary sovereignty to avoid bond market discipline. Post-Keynesianism does not explain the effectiveness of fiscal policy by wage and price stickiness but by fundamental uncertainty and money contracts (Davidson 2007). If the entrepreneurs have no information when effective demand recovers, they have no incentive to start investing more, even if real wages shrank. There are no automatic adjustment mechanisms in modern post-Keynesian theory: savings do not translate into investments automatically as the money supply is endogenous in modern economies. Post-Keynesians also understand the capitalist economies to be credit-driven which further weakens the idea of automatic adjustments. For instance, mechanisms like the endogenous business retention ratio are not enough to balance effective demand in a credit-driven economy. Hence, post-Keynesians suggest that there canbe space for fiscal deficits, however financed, in all possible time periods.

With regard to assumptions about the behaviour of the political elite if external spending constraints are lifted by the central bank, post-Keynesian theory has at least two important remarks. Firstly, post-Keynesian economics does not include any well-articulated theory about economic policy decision-making as the theory has not been built to depict and explain all human life but only some aspects of it. However, in the spirit of modern behavioural economics, post-Keynesians do highlight the context-specific nature of all preferences and tastes (Lavoie 2014, 104–105). It is unrealistic from a post-Keynesian perspective to argue that "politicians" would almost always begin a lunatic spending spree if given the opportunity. Secondly, especially the neo-chartalist strand of post-Keynesians have long argued that monetarily sovereign governments are already able to accumulate huge loads of debt largely because the bond market actors understand that the central banks of monetarily sovereign governments will always finally guarantee the solvency of the government (see e.g. Nersisyan & Wray 2010). Hence, even though states like Japan have proved that they can accumulate debt more or less indefinitely, no hyperinflationary behaviour has emerged.

Consequently, post-Keynesians are adamant in insisting that there is no clear connection between central bank financing of government spending and hyperinflation or other inflation crises. The remaining question then is how the real-world hyperinflation can be explained if irresponsible "printing of money" is not the answer? The next sub-chapter will deal with these issues.

5.2 HYPERINFLATION AND EXTERNAL ECONOMIC POLICY CONSTRAINTS

The claim that central bank financing of fiscal deficits leads (almost always) to hyperinflation in the long run is a hallmark of neoclassical theory. In its modern form, the argument was first presented in an article by Philip Cagan (1956) in a book published by the University of Chicago and edited by Milton Friedman[144]. Since the work of Cagan, hyperinflation – that is, periods with a monthly inflation rate exceeding 50 per cent – have been framed as excess demand crises enabled by irresponsible "printing of money" in neoclassical theory.

What is somewhat surprising, however, is how weak the empirical evidence for the neoclassical hyperinflation story is. Josh Ryan-Collins and Frank van Lerven (2018, 7–8) summed up their review of empirical hyperinflation studies with a following remark:

> *[I]t is not surprising that it has been a struggle to find statistically significant relationships between fiscal deficits and inflation or base and broad money growth, regardless of whether deficits are 'funded'*

[144] An earlier version of Philip Cagan's argument was presented by Constantino Bresciani-Turroni in 1931 in his book analysing the causes of the German hyperinflation of the 1920s.

> *via private sector bond purchases, commercial bank or central bank monetisation. This applies to cross country panel studies (Dornbusch and Fischer 1981; Seccareccia and Sood 2000; Catao and Terrones 2005; Lin and Chu 2013) and single-country time series studies (King and Plosser 1985; Protopapadakis and Siegel 1987; Barnhart and Darrat 1988) and also during fixed and flexible exchange rate regimes (Demopoulos et al. 1987; Ryan-Collins 2015) from a wide variety of countries, historical periods and different inflation rates.*

The most comprehensive neoclassical modern-era study of hyperinflation is Stanley Fischer, Ratna Sahay and Carlos A. Végh's study based on a sample of 133 countries (see Fischer et al. 2002). Even though Fischer et al. seem to be persuaded by the orthodox hyperinflation narrative, their results are not in line with their opinions. In summing their results Fischer et al. conclude:

> *The expected positive relationship between fiscal deficits and inflation cannot always be detected in the data. We find no significant long-run (cross-section) relationship between fiscal deficits and inflation. In the annual cross-section time series panels, the relationship is significant for the high inflation countries but not for the low inflation countries.*
>
> *Fischer et al. 2002, 877.*

Moreover, they even come to the following conclusion:

> *The overall picture that emerges is that Granger causality appears to run more often from exchange-rate changes or inflation to money growth than vice versa.*
>
> *Ibid. 850–851.*

Although Fischer et al. deny that their findings could indicate the inaccuracy of the traditional Caganian hyperinflation theory, their results seem to be more consistent with post-Keynesian hyperinflation theory than the orthodox view they themselves endorse. As I will later point out, the post-Keynesian hyperinflation theory highlights exactly the role of wild exchange rate changes and the subsequent inflation passthrough.

The recent results of Ryan-Collins and van Lerven (2018) are especially damning from the orthodox viewpoint. For instance, they compared the level of central bank holdings of government debt to the inflation rate in 13 advanced countries from 1900 to 2011 and found that "there is little evidence of any kind of sustained relationship between the rate of inflation and the proportion of central bank holdings of government debt, aside from the two World War periods" (Ryan-Collins & van Lerven 2018, 12–13).

Consequently, the traditional hyperinflation narrative is clearly insufficient and partly even fallacious. I will next turn to post-Keynesian explanations of hyperinflation periods to find alternative interpretations. I will suggest that the theory of balance-of-payments-constrained growth offers a more convincing explanation of hyperinflation crises. It also helps to supplement my analysis of the external limitations to state-level fiscal policy. I will argue that government bond markets do not possess significant powers to discipline governments enjoying from strong monetary sovereignty if they have right institutional arrangements in place and have not been persuaded by the traditional hyperinflation storyline. However, even monetarily sovereign governments cannot escape the discrepancy existing between territorial states and the global economy (see Patomäki 2009). As I will explain, the fundamental external limitations to the economic policies of most states are not analogous to those limitations discussed in the Political Economy researched influenced by the bond-market-power narrative.

5.2.1 BALANCE-OF-PAYMENTS-CONSTRAINED GROWTH AND HYPERINFLATION

The theory of the balance-of-payments-constrained growth in its modern form, was first expressed by Anthony P. Thirlwall in 1979 in his seminal article "The Balance-of-Payments Constraint as an Explanation of International Growth Rate Differences"[145]. The simple idea of the balance-of-payments-constrained growth theory is that the rate of the growth of exports and the income elasticity of demand for imports set the upper limit for economic growth for most countries[146] – the exception being those countries or economic areas whose currency has a significant role as an international reserve or trade currency[147].

Balance of payments (BOP) is an identity portraying all transactions made between different agents in one country and the rest of the world. It is usually expressed by the following equation[148]:

(1) $X - M + F + \Delta R = 0$

Here X stands for exports, M for imports, F for net flows of capital and ΔR for changes in the reserve currency in question. The key conclusion drawn from the BOP identity is that a country's deficit in any one component of the identity is always matched by a surplus in another component. Hence, we can rearrange the original BOP identity in the following way:

145 Previously similar ideas were expressed by Roy Harrod (1933) and Joan Robinson (1938).

146 This idea is also often called "Thirlwall's Law".

147 In the second quarter of 2019, more than 60 per cent of world currency reserves were held in US dollars. Slightly more than 20 per cent of the reserves were denominated in euros while all other currencies had a maximum share of around five per cent (Japanese yen and British pound) of total world reserve currencies. (IMF 2019.)

148 The following presentation of the BOP identities is based on Matías Vernengo and Esteban Pérez Caldentey's working paper "Modern Money Theory (MMT) in the Tropics" (2019).

(2) $F + \Delta R = M - X$

This says that a current account deficit is always matched by net capital flows and changes in reserves. In practice, if a country is suffering from a current account deficit, it can compensate for the deficit by either depleting its currency reserves or gaining sufficient net capital inflows. The currency reserves are never inexhaustible which is why sooner or later a country (or an economic area) suffering from a chronic current account deficit must be able to extract enough foreign capital inflows to cover for the current account deficit. (Vernengo & Peréz Caldentey 2019.)

The problem is that if the country in question is not an attractive target for financial market investors, either of the two equally negative scenarios will prevail. In the first scenario, enough foreign investment cannot be induced which is why the current account deficit cannot be covered any longer. Hence, there will be a shortage of vital imports and a significant increase in import prices. The other more likely alternative is that foreign investment will continue to flow and the current account will be served but with lower currency prices. For instance, we can imagine a hypothetical situation in which Argentina has a current account deficit and is in need of getting US dollars to buy imports denominated in US dollars. In this case, US investors might still be willing to buy Argentinian pesos, but they will want ever more pesos for each dollar. The result is the same as in the first scenario: increases in import prices. (See Vernengo & Pérez Caldentey 2019; Ahokas & Holappa 2014b, 219–235 & 277–306.)

Consequently, the key claim of the balance-of-payments-constrained growth theory is that it is risky for most countries to run continuous current account deficits[149]. The BOP constraints are at the heart of post-Keynesian hyperinflation theory too. Hyperinflation is almost solely a phenomenon of developing countries which often have narrow industrial structures, weaker export sectors and less entrenched financial sectors. There have been numerous post-Keynesian studies that have convincingly demonstrated the crucial role of BOP imbalances in the onset of various outbreaks of hyperinflation (see e.g. Charles & Marie 2017; Marie 2014; Kulesza 2017; Câmara & Vernengo 2004).

According to post-Keynesian theory, the typical path towards hyperinflation begins after a significant depreciation of the currency due to the collapse of export prices (for instance) in a country that is strongly dependent on imports and has limited currency reserves[150]. In such a context, firms

[149] This applies regardless of the existing exchange rate arrangement contrary to the claims of some neo-chartalists (see e.g. Wray 2012, 121). Flexible exchange rates do not necessarily offer more policy space if the inflation passthrough mechanism is strong (see Vernengo & Pérez Caldentey 2019).

[150] What is here portrayed as the post-Keynesian view could as well be called the structuralist view, as such views were first developed within what is usually called the structuralist school of economics

respond to rising import prices by raising their own prices after which workers begin to demand higher nominal wages in order to preserve their purchasing power. An inflation spiral emerges and cannot be stopped without stringent austerity measures.

In this view, hyperinflation crises can become deeper if there are lax fiscal policies but they are not the original cause of the crises. It is also important to understand that in an environment of endogenous money supply, central bank financing of fiscal deficits is not needed for the money supply to grow. The key driving forces of hyperinflation, at least historically, have been BOP constraints and exchange rate depreciation as well as the intensification of distributive conflicts and wage indexation mechanisms (Kulesza 2017). This is exactly the conclusion that should be drawn from the results of Fischer et al. (2002, 850–851) when they noted that in hyper- and high inflations the causality runs usually from "exchange-rate changes or inflation to money growth than vice versa".

5.2.2 THE POLICY CONSEQUENCES OF THE BALANCE-OF-PAYMENTS CONSTRAINT

Many neo-chartalist economists have raised the point that acceptance of the balance-of-payments constraint leads automatically to the abandonment of almost all Keynesian-type policies. This is assumed to follow from the fact that the BOP constraint is not often consistent with fiscal policies targeting full employment as increasing domestic demand may, in many cases, lead to growing current account deficits as imports begin to grow faster than exports. William Mitchell (2016) has been especially critical – and at times even viciously so – of the balance-of-payments-constrained growth theory:

> *Thirlwall's Law has been been* [sic] *used to disabuse us of the notion that governments can use fiscal stimulus to ensure we achieve and sustain full employment.*
>
> *The argument is that as soon as the government does that it will push the nation into a balance of payments crisis, which, in turn, requires harsh austerity to bring the growth rate back into line with the external constraint.*
>
> *There is nothing to distinguish so-called progressives who make this argument from the neo-liberals at the IMF who also make it. Perhaps a nuance is that progressives tend to focus on import-substitution policies to reduce the balance of payments constraint while the likes of the IMF focus on expanding export potential. The nuance nonetheless.*

(that is, the particular strand of dependency theory developed especially by Raúl Prebisch and Celso Furtado). (Câmara & Vernengo 2004.)

I have some difficulties with Mitchell's harsh position for several reasons. Firstly, even though Mitchell's work and the work of other neo-chartalists has strongly influenced my study and has been important in improving the general understanding of the potential for state-level economic policies, the external constraints on national economic policies must also be recognised. As demonstrated in the previous sub-section, the BOP constraints are obvious and well-documented when it comes to developing countries but there are also significant risks for currency crises in the case of small developed countries too.

Secondly, accepting the BOP constraint hardly equals "surrendering to neoliberalism" or submissively implementing economic policies preferred by bond market investors even though it certainly sets some limits on fiscal policy. Countries with large currency reserves can tolerate current account deficits for quite a long time and can improve the performance of their export sectors with active industrial policies that are consistent with Keynesian full employment goals.

Thirdly, in my view, the BOP constraint should be understood only as a rough approximation of the external constraints on state-level economic policy. As the leading post-Keynesian exchange rate theorist John T. Harvey (2009) has pointed out, foreign capital inflows should not all be treated in the same way. The long-term foreign direct investment could certainly be seen to offer quite a stable cover for current account deficits. The problem lies with highly speculative short-term portfolio investment which cannot be relied on covering current account deficits for long. Thus, it could be possible to try to limit foreign portfolio investment as much as possible with capital controls and other regulatory actions but at the same time cover part of the current account deficit with long-term foreign investment (see Ahokas & Holappa 2014b, 277–306).

Fourthly, as I will point out in the final chapter of this book, BOP constraints should be countered with international co-operation. The Keynes–Davidson plans have been conceived to eliminate the limitations for state-level fiscal policy arising from current account imbalances. There is no reason why one could not make the argument that the room for national economic policies is larger than is commonly understood while at the same time recognising the limitations stemming from the discrepancy between the open spaces of the world economy and territorial nation-states (see Patomäki 2009).

5.3 CONCLUSIONS

I have demonstrated in this chapter how crucial the meta-theoretical underpinnings are for any economic-theoretical framework. I have strongly argued in this chapter that Say's law is fundamentally inconsistent with the open-systems-based post-Keynesian theory. This is due to the fundamentally uncertain nature of post-Keynesianism which is in stark contrast with the assumed existence of geo-historically universal adjustment mechanisms that are at the heart of Say's law-based theorising. This has important consequences for my general argument as I will explain next.

Social-scientific research can have various goals and motivations: it may aim at *describing* what has happened, *interpreting* the relevance and consequences of what has happened or *explaining* why something has happened. Of all these possible goals, the last-mentioned – explanation – is the one most closely linked with the idea of scientific inquiry.

While journalists, novelists and all sorts of public intellectuals may give plausible descriptions and interpretations of various phenomena, more rigorous practices are needed when one's aim is to explain the occurrence of X. This is because when scholars seek to explain "why X", they are immediately forced to explain "why then not Y or Z". Thus, we need some clearly stated principles of what counts as evidence and how is evidence to be judged. The key difference between the social sciences and other societally oriented intellectual pursuits is that social-scientific inquiry is (or at least should be) based on a coherent understanding of reality and knowledge that enables the judgement of competing truth claims and evidence pointing at different conclusions. Thus, explanation is the objective most characteristic of social-scientific aspirations. Social sciences can also describe and interpret events, processes and phenomena but these are all pursuits not exclusively specific to social sciences.

This is not to say that non-academic intellectuals and commentators could or should not offer explanations. Rather, my point is to say that explanation is integrally tied to contrasts – other scenarios of what could have happened (see Morgan & Patomäki 2017). If no other outcomes were possible, the whole attempt to explain would be futile. So, if explanation is always *contrast explanation*, one needs a coherent philosophy and methodology to guide the investigation in order to make the truth claim that A explains why X rather than Y. The existence and guiding role of such ontological and epistemological background principles is characteristic of only scientific and academic forms of argumentation.

One specific form of contrast explanation is counterfactual reasoning. By engaging in counterfactual analysis, the researcher aims at answering the question "What would have happened, had X been otherwise" (Patomäki 2017b). This is specifically the type of question this study has aimed to answer. The key motivation of the study has been to uncover whether the bond-market-power narrative must logically rely on closed-systems macroeconomics. This basic research problem can be translated into a counterfactual question "Is the acceptance of closed-systems macroeconomic theory (at least passive acceptance) a necessary condition of the BMPN".

One can attempt to answer the question by first defining the contrast to closed-systems economics – that is, by describing the essential features of open-systems macroeconomics. Open-systems theory argues that all observed regularities in the social sphere are potentially temporary and mutable, conscious human action is possible and continuously transforms social relations, and, consequently, societal phenomena are fundamentally undetermined.

Now, with this definition in mind, one can proceed to unpack BMPN-based Political Economy theories. As was pointed out in chapter 2, the BMPN is only consistent with economic theories claiming that central bank financing of fiscal deficits is so generally harmful that it cannot be considered as a serious policy alternative. If this would not be the case, there is no reason to expect monetarily sovereign governments to be structurally disciplined by the bond markets.

Open-systems theories usually allow multiple outcomes and include only provisional and mutable regularities. Hence, an open-systems-based theory can hardly make a claim that central bank financing of government spending or fiscal deficits *per se* are *necessarily* harmful in some specific interval. Open-systems macroeconomics would claim that the effects of fiscal policy, irrespective of the interval in question, always vary depending on the phase of the business cycle, prevailing institutions and numerous other factors. There are no predetermined outcomes in social-scientific open-systems theorising even though some demi-regularities might be exceptionally strong.

Consequently, the acceptance, whether passive or active, of a closed-systems macroeconomic perspective is a necessary component of the bond-market-power narrative. This is the most central finding of my study. It is important, because once the research community of political economists begins to reckon that the widely-held belief of the disciplinary capabilities of government bond markets reflects mostly the economic-theoretical dogmas of the theorist rather than the "crude, material facts" of the world economy, the credibility of the research strand built around the BMPN collapses. This is something I believe to be extremely important for the future of Political Economy research as I will explain in greater detail in the final chapter of this book.

This study has also produced other important observations. The three most important supplementary perspectives are the following. Firstly, the closed-systems approaches that can be used to justify the supposition of the general harmfulness of central bank financing of fiscal deficits are mostly built around some form of Say's law. The logic of these approaches is usually based on the automatic adjustment towards some long run position. In practical terms, this usually refers to the assumption that there is enough aggregate demand in the long run. Thus, the economy is supposed to be only or mostly supply-constrained in the long period. This is not to say that one could not invent adjustment mechanisms that didn't rely on Say's law. My point is rather that the existing arguments seem to rely on Say's law-type mechanisms.

Secondly, I have also demonstrated that the empirical base of the most popular Say's law-type adjustment mechanisms is weak. There is little evidence of the importance of a real balance effect in a modern capitalist economy. This is not surprising since in a credit-driven economic system, strong disinflation may trigger a process of debt deflation. I have also found that arguments based on an endogenous business savings rate are not convincing either. Therefore, the point of this study is not merely that political economists' views have been narrow and they have been unconcerned about the pluralism of economic theories. The problem is bigger: theoretically and empirically more questionable theories have served as the basis of argumentation (at least passively) while more realistic theories have been overlooked.

Thirdly, I have suggested that most governments face stiff external limitations to their economic policies. For monetarily sovereign governments or those partly non-sovereign governments with significant currency reserves, the problems do not stem from disciplinary actions the bond markets but from BOP constraints. These constraints have existed as long as political authority has been territorially bounded while economic interaction has been global. Thus, the narrative that the financial deregulation that has taken place from 1970s onwards has given unforeseen disciplinary powers to non-elected market participants is somewhat misguided. Financial deregulation has certainly caused many problems for the economic management of states: the economic environment has become, for instance, significantly more volatile and tumultuous while wage and tax competition have created new troubles for more advanced welfare states. However, the idea that financial markets would now have the (material) capacity to dictate or even strongly influence the fiscal policies of the numerous governments that have upheld their monetary sovereignty, is not true. It is important to understand that the constraints on state-level fiscal policy have not changed anywhere near as much as BMPN-type scholarship usually argues.

The final chapter of this book contains discussion about the significance of the results from the viewpoint of the discipline of Political Economy. I will also analyse what my results say about the scope of democratic politics in the context of modern global economy. The great narrative of Political Economy and many other social sciences has been that the scope of democracy has dwindled when global financial markets have been able to force all governments to accept permanent austerity and never-ending labour market flexibilisation. If this narrative is as flawed as I have argued, should we have more optimism for the possibilities of democratic capitalism?

6 THE FUTURE OF POLITICAL ECONOMY AND THE POSSIBILITIES FOR DEMOCRATIC CAPITALISM

One could always pose the question whether anything I have argued in this study has any relevance beyond academic seminars, conferences and classrooms. Such attitudes are widely shared even among academics, but they are mistaken in many ways.

The remarkable influence of social-scientific ideas has been demonstrated in several studies. The closest example to the themes of this study comes from the rise of neoliberalism. It is now well-documented that the collapse of the Hicksian and Samuelsonian varieties of neoclassical Keynesianism and the consequent rise of the Chicago school within mainstream economics has significantly contributed to the rise of neoliberalism (see Blyth 2002; 2013; Harvey 2005; Van Horn & Mirowski 2009).

Even though Political Economy does not have similar social status and respect as neoclassical economics, many political economists have also enjoyed considerable praise from the press as I have already demonstrated in the case of Wolfgang Streeck. However, at times political economists' work may have even more direct societal and political impact. For instance, Ed Balls (1998, 123) – the then-economic policy advisor to the Chancellor of the Exchequer, Gordon Brown – cited exclusively the work of Layna Mosley (1997) when justifying the fiscal policies adopted by the New Labour of Tony Blair and Brown. After pointing out that government bond markets "take a strong view of a relatively narrow range of macroeconomic indicators" he concretises the narrow but strong market influence by saying:

> *Far from rendering governments impotent or rewriting the laws of econ-omics, it seems to me that global capital markets actually render governments more powerful in their ability to do bad or good – the main dimensions on which they have influence are scale and speed rather than direction.*
>
> *Governments which pursue monetary and fiscal policies which are not seen to be sustainable in the long term, and, worse, attempt to conceal the fact through short-term diversion or deceit while delaying the necessary corrective action, are punished hard these days – and much more rapidly than thirty or forty years ago.*
>
> *When these crises hit, the effects can be hard and painful: high interest rates and fiscal retrenchment to stabilise the macro economy; low investment, fewer jobs and slower growth as a result; a halt to structural reform and the wider economic agenda as the crisis consumes time, energy and confidence; and contagion effects as –*

perhaps irrationally – confidence slumps in the wider economic area or region. But there is also a longer-term effect to be paid. Once such a mistake occurs, it can take a long time to repair the damage, in terms of lost credibility, and so rebuild the ability to deliver stability through discretion.

Ibid.

The influence of the bond-market-power narrative can be seen as fairly straightforward in this passage. Naturally, nobody can ever prove that BMPN scholarship would have been the driving force behind New Labour's austere economic policy but such research was clearly used to justify their economic policies.

However, the socio-political significance of Political Economy or any other social-scientific discipline is not just limited to its direct impact on public discussion and public policy. Firstly, political economists train thousands of students all around the world. Some of the students decide and manage to remain in academia but the rest disperse into all sectors of society: many might go into public administration, politics or NGOs while some opt for the private sector. It is thus of great importance which views are hammered into the students' heads in the very receptive stages of their intellectual development.

Secondly, the status of heterodox economics is highly fragile. Most economics departments teach only neoclassical perspectives and the best-known journals accept only contributions based on mainstream theory and methodology. It is quite likely that heterodox economic theories might enjoy a brighter future within Political Economy than economics. So, if also Political Economy becomes dominated by orthodox economic-theoretical viewpoints, the future of heterodox economics becomes increasingly dim.

Consequently, the entrenchment of the BMPN in Political Economy is not a trivial or purely "academic" matter. It has grave socio-political consequences. Why then has the BMPN had such an important role in Political Economy since the late 1980s? This question is beyond the scope of my study, but I can quite safely assume that the current economic-theoretical weakness of Political Economy plays a key role here. As has been noted by both Mark Blyth and Mathias Matthijs (2017) and Konsta Kotilainen and Heikki Patomäki (2019), Political Economy seems to be currently lacking any profound economic-theoretical discussion. The more orthodox wing of Political Economy has an uncritical attitude towards neoclassicism. Both in comparative political economy and international political economy, numerous theorists have based their approach on neoclassical standpoints without any further discussion about the political consequences of the chosen perspectives or how realistic they are. The more critically oriented scholars are not usually so committed to orthodox axioms or methods, but they often bypass the significance of real causal mechanisms altogether and concentrate on power effects of different discourses.

However, the dismissal of wider economic-theoretical analysis is not the cause of the BMPN and similar problems of Political Economy. It is probably a mere reflection of a deeper problem – namely, the demarcation between "politics" and "economics"[151]. For mainstream political economists, this separation seems to be a sort of self-evident fact. Many IPE textbooks, for instance, define the discipline as an inquiry of "the interplay of economics and politics in the world arena" or "how the global economy shapes politics" (Frieden & Lake 2000, 1; Oatley 2011, 1). More critical scholars usually avoid such simplifications but the relative disinterest towards real mechanisms of material reproduction hint at a similar approach.

If the "economic" is understood as an immutable permanent sphere or a logic that prevails regardless of time and space, a closed-systems perspective is indeed justified as an economic-theoretical starting point for Political Economy. On the other hand, if arrangements, institutions and processes deemed "economic" are understood as historically specific and socially determined, there can be no clear boundary between the economic and political spheres.

Consequently, the central role that BMPN has played in Political Economy reflects the troubled state of the discipline. I will present my views on how Political Economy should be reformed in the next section.

6.1 POLITICAL ECONOMY: LEARNING FROM HISTORY WHILE OVERCOMING IT

It is somewhat ironic that political economists often give highly appreciative descriptions of the holistic approach of Classical Political Economy. The works of Adam Smith, David Ricardo and their contemporary colleagues are frequently described as portraying society as an endless web of social relations in which calculative economic behaviour forms only one part of the whole and where power and politics are ever-present (see e.g. Gamble 1995; Underhill 2000; Clift 2014). Such depictions of Classical Political Economy are not wrong, but they hardly characterise modern Political Economy research and therefore it is difficult to see clear continuation from classical to modern Political Economy.

As I demonstrated in the case of the bond-market-power narrative, political economists rarely engage in any deeper economic-theoretical reflection. Quite often the dominant perspectives of neoclassical economics – or in some cases, the claims of another school of thought the theorist happens to favour – are merely taken as given.

However, modern Political Economy is not doomed to be an inferior bulk copy of the Real Thing. The problem is the division of social sciences into highly specified disciplines and sub-disciplines which leads to an academic

[151] I am grateful for Teivo Teivainen for making this point.

division of labour in which disciplinary boundaries are strictly respected. It is often the case that scholars only "draw inspiration" from the perspectives and results of other disciplines but do not critically engage with their fundamental approaches. Therefore, it is not surprising that political economists have adopted orthodox economic-theoretical perspectives so uncritically.

This needs to be changed if Political Economy is not only to study the "interaction" between *the political* and *the economic* but also to analyse the political nature of the economic. However, I argue that the "politicality" of the economic can be studied profoundly only by focusing on causal mechanisms of reproduction and by using the methods of contrast explanation. If someone argues that some prevailing economic discourses have a significant influence in the real world or makes the point that experts, think tanks and other commentators possess crucial discursive power, in order to be logical, the argument must include the assumption that there are real alternatives for the hegemonic political-economic claims.

This should be obvious at least from a Lukesian perspective on power. Steven Lukes (2007, 84) has famously defined having power as "being able to make or to receive any change, or to resist it". Power is, thus, a "potentiality" which is always in relation to the possibility of change. Hence, all discourses, practices and institutions that can be argued to have "power effects" either protect the status quo from change or are in some way against the existing state of affairs. However, it is not enough for the analyst to pinpoint how some structures may affect the distribution of power (or money and material resources) between various groups. The power analysis becomes socio-politically significant only when it is shown that another result could have been plausibly achieved.

Consequently, proper investigation of social power must always be supplemented with causal explanation and contrast analysis. Only with such approaches can the analyst demonstrate that other plausible alternatives were also available. Clinging to dogma like "there are always other options" is not convincing as it cannot be self-evident in advance that other chosen actions would have produced a better result from the chosen perspective[152]. It is always the case that existing structures and cultures make some solutions less attractive than others and may even completely inhibit some alternatives. This is indeed the very essence of structural power: the systemic limitation of available options. Hence, Political Economy should begin to supplement its studies of power relations with analyses of production, growth, finance,

[152] Nearly exclusive focus on discourse detection is sometimes portrayed as a modern form of Gramscian hegemony analysis. Such research attempts to identify the governing ideas and ideologies of the era while bypassing the task of explanation (see e.g. Laclau & Mouffe 1985). The problem with such power analysis is that nothing is usually said about the alternatives. If, for instance, one argues that the discourses and agendas of employers dominate economic policymaking, it says nothing about the potential alternatives to the current hegemony.

employment, income inequality and other themes previously considered to be belonging exclusively to the domain of economics.

However, my point is not that everything is wrong in modern Political Economy and a return to Classical Political Economy would be the solution. Classical theory was built around several dubious assumptions about the "natural laws" governing human nature which were invented in and for the specific political situation following the Glorious Revolution (see section 4.1; see also Clift 2014, 47–52). After the power of the sovereign was greatly reduced, new mechanisms to preserve social order were needed. Classical political economists argued that the strive for self-interest in a market system brings about harmony as competition enables efficient distribution of productive resources and improves living standards. It is questionable whether characteristics like "self-love" or egoism are useful to capture the essence of social behaviour[153]. The assumptions of the general tendency towards market-clearing are even more problematic.

The strengths of the political analysis of classical theory are also often overplayed. Even though Classical Political Economy never fully separated the political from the economic, its power analysis was still quite undeveloped. It is true that the early political economists studied the political implications of the emerging market system, developed normative notions on good public policy and analysed state actions. Nonetheless, their analysis naturally lacked the nuances of modern power theory. There was no specification of different forms of power (such as Lukes's decision-making power, non-decision making power and ideological power[154]) or deeper discussion about the structures that reproduce power relations. Thus, modern Political Economy should not imitate classical theory but merely draw inspiration from it.

It is neither the case that the poststructural turn in Political Economy would have been entirely without merit. The idea of the performativity of social theory is an especially important addition to Political Economy[155]. The concept of performativity refers to the ways in which social-scientific theories have real-world consequences. For instance, if economists relying on a piece of

[153] However, I am not suggesting that the Classical views about human behaviour could be reduced to the principle of utility-maximising egoism as is, to a significant extent, the case in neoclassical theory. The emergence of behavioural economics has widened the understanding of the type and motivators of human behaviour even in neoclassical economics (see e.g. Wilkinson & Klaes 2017).

[154] Decision-making power refers to the public face of power: the ability to make decisions in the legal-bureaucratic process. Non-decision-making power is close to the capability to set agendas while ideological power refers to the ability to set constraints on individuals' interests. (Lukes 2005.)

[155] I am here referring to the original sense of the concept of performativity initially developed by J. L. Austin (1962). I agree with Uskali Mäki (2013) that the Austinian usage of performativity theory is superior to its current versions developed by Donald MacKenzie, Michael Callon and others (see e.g. MacKenzie et al. 2007). The problem with new performativity theories is that they expand the scope of performativity theory to include also constitutive speech acts which blurs the whole purpose of the theory.

economic theory argue that rising budget deficits increase macroeconomic risks and cause the general deterioration of investment sentiment, the analysis may come true for the simple reason that entrepreneurs are affected by the continued repeating of the theory in the public sphere.

Performativity theory is of great importance for modern Political Economy for two reasons. Firstly, it demonstrates for the political economists that their theorising may also have real-world consequences. This is important because acknowledging the potential effects of academic work can have effects on the chosen stylisations and generalisations. For instance, if a critical theorist wants to emphasise the crisis of modern democracy by highlighting the various ways how global capital markets may set constraints on state-level decision-making, she may, at the same time, reify and improve capital's position in the society. The point is that all theorising is based on some idealisations and it is up to the theorist to decide which features of reality should be sacrificed in order to drive home some other argument. When these decisions are made the (potential) performativity of the uttered theory should always be considered.

Secondly, the performativity of economics should always be considered in the analysis. Economics cannot be treated only as a depiction of material relations, as often seems to be the case in Political Economy, but also as a *causal factor in itself.*

Consequently, I argue that Political Economy should develop into a discipline where causal explanation is integrally tied to power analysis. The aim of modern economics – even heterodox economics – is to understand causation without saying much about power while modern Political Economy concentrates almost exclusively on power and avoids questions of material reproduction. Understanding mechanisms of production, trade and finance is often impossible without profound power analysis. For example, the potential effects and implementation of labour market flexibilisation reforms depend to a significant extent on the strength, political aims and organisational culture of local trade unions. The same goes for power relations, as I have already demonstrated. It is almost impossible to say anything of importance of social power without analysing what are the alternatives for a given state of affairs. Thus, causal explanation and power analysis cannot be separated from each other.

Political Economy needs a sound meta-theoretical basis which enables the connection of the exploration of material reproduction, social construction of meanings and practices and power analysis. I argue that critical realism is uniquely suitable for this task. However, it is not enough to endorse the key tenets of critical realism. Many critical-realist-inspired studies have turned out to be vague and arbitrary when there has not been enough focus on the practical implementation of its ideas. Hence, critical realism should not serve as a mere justification for avoiding quantitative methods and mathematics as sometimes might be the case. It should, on the contrary, act as a basis for a demanding multi-theoretical and -method approach that brings together ostensibly distant perspectives of social sciences.

However, the purpose of this study has not been merely to comment the state of the discipline of Political Economy. The wider aim has been to analyse the opportunities for democracy in the context of current world economy. The final part of the book deals with this issue.

6.2 TOWARDS A MORE DEMOCRATIC WORLD-SYSTEM

There is plenty of robust evidence suggesting that the effects of the deregulation of global finance from the 1970s onwards have caused several socio-economic problems – such as increased financial instability and wealth and income inequality (see e.g. Wray 2011; Stockhammer 2012; Lin & Tomaskovic-Devey 2013). However, it is far from clear that it has also significantly contributed to the structural power of capital – at least in a non-discursive sense.

Some political economists have argued that the consequences of international capital mobility can be seen in the spread of social dumping practices and labour market flexibilisation policies (see e.g. Aspinwall 1996 and also Frieden 1991; Cerny 1995). It is well-known that numerous major corporations have located many of their production facilities to low-wage countries. Nevertheless, it is not entirely obvious that shifting low-skilled jobs to areas where production costs are lower would not have happened had the deregulation of global finance not happened. Even if Western corporations had not shifted their production to low-income countries, it is likely that the production of bulk commodities would have been concentrated into these areas at some point. It would have only been carried out by the companies of the Global South. The deregulation of capital markets has probably only speeded up the process.

Political economists have also put a lot of emphasis on exchange rate pressures as an example of the strengthening structural power of capital in the post-Bretton Woods era of deregulated global finance (see e.g. Gill 1998; Rupert 2005). This is problematic for two reasons. Firstly, currency traders use a variety of indicators when making investment decisions – the most important being real interest rates, trade balance and unemployment (Harvey 2009, 86). Thus, it is not clear what kind of economic policy actually pleases foreign exchange investors. For instance, tight monetary and fiscal policies might contribute to high real interest rates and positive trade balance but might also uphold unnecessarily high unemployment rates. Traditional Keynesian fiscal and structural policies would probably reduce the unemployment rate but it might also lead to new inflation pressures and worsening trade balance. Consequently, it is difficult to argue that foreign exchange market players discipline governments for conducting certain economic policies as a variety of policies can satisfy them as long as the exact targets of those policies are achieved – be it export-led growth or low unemployment.

Secondly, structural power (at least in this case) refers to the external political and operational environment constraining government action. However, governments have significant latitude over foreign investment. For most economic areas, discouraging speculative portfolio investment is recommendable if they want to avoid exchange rate volatility and crises. This is also consistent with the conclusions of the balance-of-payments constrained growth theory. Post-Keynesians have long argued for the type of capital control that Chile used from 1991 to 1998 (for a depiction of Chilean controls see Neely 1999, 25; for post-Keynesian views on such controls see Grabel 2003; Harvey 2009, 131). These were based on "a requirement to keep funds in Chile for a prescribed period" and implemented through an obligatory deposit in the central bank and a punishment fee charged in cases of an early departure (Harvey 2009, 131). However, even more dire restrictions preventing all financial transactions unrelated to trade put in place in Iceland following the global financial crisis of 2007–2009 have also turned out to be efficient and successful (Aguirre Carmona 2014). Hence, it is difficult to argue that governments are helpless in the face of wild exchange rate movements when in fact they have multiple measures at their disposal to influence exchange rate volatility. In conclusion, it is safe to note that free capital mobility is not a structural condition into which governments should merely react and adjust.

If we still assume that the structural power of capital has significantly strengthened as a consequence of the deregulation of financial markets, we are back at Layna Mosley's (2003, 17) argument that the government bond market "provides a *most likely* location for the operation of financial market pressures". This seems to be the dominant view among political economists as the continuing popularity of the BMPN demonstrates. However, as has been argued throughout this study, bond market actors can discipline only those governments that have weak or non-existent monetary sovereignty. Other governments can circumvent bond market influence by relying on central bank financing of fiscal deficits when needed.

It is often assumed that the governments of the Global North enjoy strong monetary sovereignty while governments of the Global South are more dependent on bond markets (see e.g. Verghanini & de Conti 2017; Bonizzi et al. 2019; Vernengo & Pérez Caldentey 2019). However, the case is more complicated than that. In some cases, emerging market economies might enjoy stronger economic policy autonomy than some OECD countries. This is demonstrated in figure 4 below:

Figure 4 Percentage of government debt denominated in domestic currency in the second quarter of 2019. (Source: World Bank, Debt Data.)

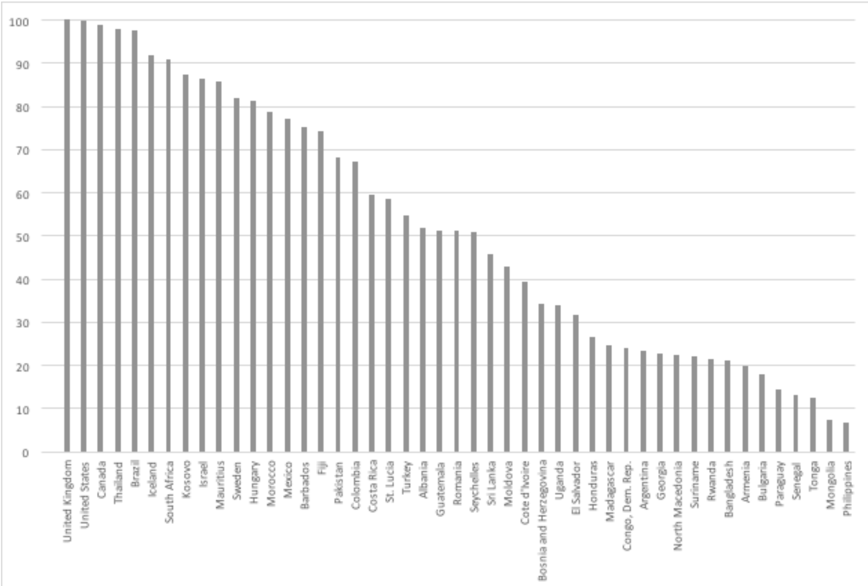
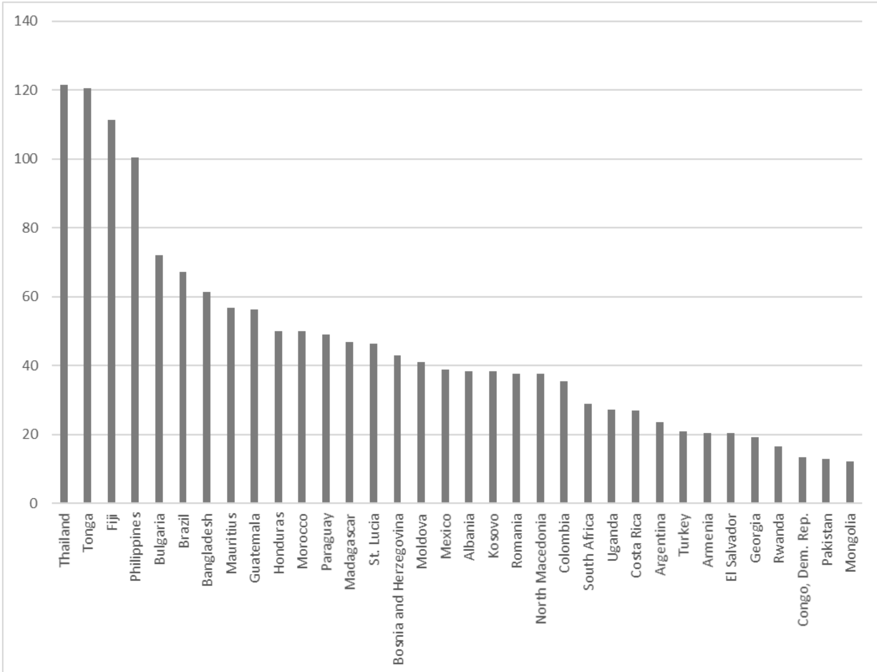


Figure 4 shows how several emerging countries have a higher percentage of their debt denominated in domestic currency than some established countries of the Global North. Excellent examples are Thailand and Brazil which have almost their entire government debt stock denominated in domestic currency whereas, say, Sweden has around a fifth of its government debt denominated in foreign currency. Many emerging economies have also significant foreign currency reserves which furthers their policy autonomy even more as is shown below.

We can see from figure 5 that strong emerging economies like Thailand and Brazil have also massive foreign reserves – around 120 and 60 per cent of total external debt, respectively. In comparison, many relatively small Western countries, which may also face wild currency volatility, have significantly smaller reserves. For instance, Canada and Sweden must cope with reserves that account for just around 4 or 6 per cent of their external debt[156].

[156] For Canadian and Swedish data on total reserves see IMF International Reserves and Foreign Currency Liquidity data.

Figure 5 Total reserves in 2018 (% of external debt). Source: World Bank.)



Thus, it is not all clear that all Western countries have stronger monetary sovereignty than powerful emerging economies. The point is that monetary sovereignty is not only a luxury feature of those Western countries not belonging to the eurozone as seems to be often assumed (see e.g. Verghanini & de Conti 2017). In reality, many non-Western countries are not dependent on government bond markets as they issue their own currency, have most of their debt denominated in domestic currency and possess significant currency reserves[157]. It is of course well-known that some of the weakest countries of the Global South are more or less forced to issue bonds denominated in foreign currency in order to gain hard currency to pay for the necessary imports. Despite this, however, the ability to bypass government bond markets by using central bank financing of government spending characterises a range of countries from the Global South to the Global North.

Nevertheless, the one perennial external limitation that almost all countries face is the balance of payments constraint. However, that has

[157] Few emerging countries might be counted as monetarily sovereign in a strict neo-chartalist sense as these countries often use fixed exchange rate arrangements. However, fixed exchange rates limit economic policy space only if the government is not able to defend the exchange rate with currency reserves, capital controls and other measures and, at the same time, is not willing to give up on the particular exchange rate arrangement but prefers to impose austere fiscal policies. These conditions are so strict that they hardly characterise the reality in most non-Western countries.

constrained state-level economic policy always and has little to do with globalisation or financial market discipline. On the contrary, the BOP constraint was born out of the discrepancy that exists between territorially bounded politics and the relatively free international flow of commodities (see Patomäki 2009).

The main problem with the BOP constraint is that the need to avoid constant current account deficits incentivises governments to seek for export-led growth strategies. This can be beneficial for some individual countries with highly competitive export sectors, but at the same time it is likely to be counterproductive for the world economy in general as countries must limit effective-demand growth to preserve current account balances.

Besides its potential production-hindering and unemployment-increasing effects, BOP constraint causes obvious problems for democracy. The main democratic problem relates to governments' abilities to pursue traditional Keynesian fiscal policies where the public authority sets the size of the fiscal deficit to a full employment-sustaining level[158]. The problem for governments that have strong or moderate monetary sovereignty is not that they would not have the fiscal capacity to run budget deficits as long as needed but that the deficits needed to achieve the governments' employment target might not be consistent with the BOP constraint. However, the corollary is not that Keynesian policies would be out of the question. As I have pointed out repeatedly, the BOP constraint has limited governments' economic policy space always but, at the same time, it is well-known that Keynesian-style policies have been widespread in the past – even to the extent that we can speak of a true Keynesian hegemony in the decades following the Second World War. The case is that fundamental Keynesian policies are indeed possible but in a structurally disadvantageous position vis-à-vis supply-driven neoliberal economic policies which are easier to reconcile with the BOP constraint.

The economic and democratic problems attached to the BOP constraint are now being exacerbated by the current ecological crisis. For instance, Yeva Nersisyan and L. Randall Wray (2019, 21–24) have compared various studies about the price of the investments needed to bring the US economy to an ecologically sustainable level. The average net cost of the compared studies is around one trillion dollars (or five per cent of the GDP) annually. It is also important to remember that such a process of ecological modernisation would have to continue for several years. So, we are in need of an unforeseen global investment project which is difficult to reconcile with BOP limitations.

Enormous increases in investment could over-stimulate domestic demand even if they were countered with tax increases. This might not be a problem for the United States as the dollar is by far the world's largest reserve and trade

[158] This interpretation of Keynesianism is based on Abba Lerner's principles of functional finance (see Lerner 1943).

currency, but other countries must calculate whether it is possible for them to make the required ecological transformation[159]. Thus, even if I suggest that political economists along with other researchers and political commentators have exaggerated the disciplinary powers of the government bond market, it is quite clear that in this particular moment in world history also new mechanisms to control and democratise world economy are needed. The best-suited global proposals to tackle the BOP constraints are the plan proposed by John Maynard Keynes during the Bretton Woods negotiations in 1944 and Paul Davidson's revised version of the original Keynes Plan.

The original Keynes Plan was based on the introduction of a new international settlement currency called bancor. Bancor would be used to clear all international payments and national currencies would have a fixed exchange rate with the bancor[160]. The Keynes Plan would have also included a component to erase excessive current account imbalances which would have significantly eased the implementation of full employment-targeting demand management policies. The key element of the Plan was that the issuer of the bancor, International Clearing Union, would fine all countries running either too high current account surpluses or deficits. This would effectively prevent countries from running deflationary beggar-thy-neighbour policies that necessarily suppress global effective demand: if one cannot get the benefit from using export-based growth strategies, there is no reason to excessively restrain the growth of domestic demand. As all members of the ICU would face the same limitations, BOP constraints on state-level economic policy would be laxed drastically. Thus, there would no longer be similar pressures to restrict domestic demand growth as no country could continuously improve its external stability with strict wage moderation or austerity policies.

Paul Davidson's version of the Keynes Plan is very close to its antecedent but with three important additions (see Davidson 2004, 2009; 134–141; see also Ahokas & Holappa 2014b, 289–299). Firstly, in the Keynes Plan, the ICU would automatically fine countries violating the current account rules. The funds collected would then be used for financing global institutions and needs like Keynes's idea of an "international police force" or disaster relief. In Davidson's plan, the surplus countries could choose themselves how to spend their surpluses: they could buy commodities from the deficit countries, make direct investments in deficit countries or give foreign aid to deficit countries. Secondly, Davidson's plan would take global differences in living standards into consideration when making rulings about excessive current account deficits. If the deficit country is a low-income developing economy, it should not be required to erase its current account deficit with harsh austerity, but its solvency should be upheld with foreign aid. Thirdly, Davidson's proposal would also peg the relationship between wages and profits in each country

[159] This is not to say that political obstacles would not be the primary hindrance before ambitious climate policy.

[160] For the details of the Keynes Plan see Horsefield (1969).

which would effectively erase the opportunity to conduct beggar-thy-neighbour policies even within the accepted range of current account surpluses.

The Davidson Plan could easily be developed into a powerful vehicle for global ecological reconstruction. Firstly, it would already enable significantly larger domestic investment projects as the BOP constraint would be eased. Secondly, countries with excessive surpluses could be forced to invest exclusively on projects that significantly improve ecological sustainability in the deficit countries. Thirdly, the Davidson Plan could easily be supplemented with a global carbon tax and various environmental regulations.

It is clear that the Keynes and Davidson plans are no panacea. For instance, in Keynes's original plan, decisions would be made through a weighted voting system that would have guaranteed the privileged position of the United States and the United Kingdom (Swedberg 1986, 378)[161]. However, such aspects could easily be changed if there is enough political will. What is most important is that Keynes's and Davidson's plans would significantly reduce BOP limitations and, thus, increase the space for political decision-making.

The fundamental problem may not lie in envisioning global solutions for the discrepancy between the open world economy and territorial politics. The bigger problem is probably how to get these reforms implemented. However, in this case, the problem may produce its solution endogenously.

The structures and regimes that continuously reproduce results that are interpreted as undemocratic, unfair and unequal quite likely lose their legitimacy at some point. Neoliberalism has long enjoyed wide support and – at least in the Global North – political parties offered few alternatives to the status quo as even the centre-left accepted much of the doctrine of economic neutrality with its thirdwayist leaders such as Tony Blair, Bill Clinton and Gerhard Schröder (see e.g. Stedman Jones 2018). However, it seems that after the global financial crisis, the legitimacy of neoliberalism has deteriorated. Those mechanisms and structures that were once supposed to offer endless growth, stability and wellbeing are now seen as vehicles for the economic and political manipulation of various elite groups.

The revolt against the doctrines of economic neutrality and neoliberalism may not always manifest itself in logical and intelligible ways. For instance, Donald Trump's victory in the US presidential election in 2016 and the Brexit vote in the same year in the UK were clearly also driven by socio-economic factors despite some claims that they were solely due to cultural factors and racial resentment. Trump voters were strongly motivated by their trade and globalisation-related worries while support for Brexit was strikingly strong in "areas with deprivation in terms of education, income and employment" (Ferguson et al. 2018; Becker et al. 2017).

Thus, it is conceivable that supporters of rule-based international system might be willing to accept bolder reforms than before in order to prevent the

[161] I am grateful for Heikki Patomäki for making this point.

total collapse of the system. The willingness to reform the global economic system profoundly might be further encouraged by the record weak recovery after the global financial crisis (see Papadimitriou et al. 2019). Leading neoclassical economists have already begun to question the basis of mainstream macroeconomics and demand more active fiscal policies.

A particularly important development has been the attempt by Lawrence Summers – one of the leading neoclassical macroeconomists – to understand the challenges caused by the so-called secular stagnation to economic policy. Lukasz Rachel and Summers (2019, 2) define secular stagnation as a process in which "chronic tendency of private investment to be insufficient to absorb private saving leads, in the absence of extraordinary policies, to extremely low interest rates, inflation that is lower than desirable, and sluggish economic growth". The need for such extraordinary measures has prompted Summers and Anna Stansbury (2019) to endorse post-Keynesian macro theory:

> *More generally, in moving toward the secular stagnation view, we have come to agree with the point long stressed by writers in the post-Keynesian (or, perhaps more accurately, original Keynesian) tradition: the role of particular frictions and rigidities in underpinning economic fluctuations should be de-emphasized relative to a more fundamental lack of aggregate demand.*
>
> *If reducing rates will be insufficient or counterproductive, central bankers' ingenuity in loosening monetary policy in an environment of secular stagnation is exactly what is not needed. What is needed are admissions of impotence, in order to spur efforts by governments to promote demand through fiscal policies and other means.*

The theory of secular stagnation is not the only major challenge for the discipline of economics. The surprising rise of Modern Money Theory (MMT) – or neo-chartalism as it has been called throughout this study – in US politics and mainstream media in different parts of the world poses an even bigger threat to the neoclassical paradigm. In recent years, MMT has become entrenched in the US mass media and some MMT advocates like Stephanie Kelton have become important economic policy experts of the Democratic Party[162]. While Summers's route might lead to a fundamental reformation of the neoclassical paradigm, the ultimate success of MMT – if ever realised – may even cause a true paradigm shift.

Nonetheless, new economic ideas do not necessarily transform into new institutions of economic management – especially not at the global level. However, the collapse of the neoliberal hegemony and the rise of alternative economic theories tell about the structural weaknesses of the current global political economy. BOP constraints narrow down available economic policy

[162] For media stories about MMT see e.g. Boesler (2019), Cohen (2019) and Guida (2019).

options and together with the dominant ideologies of the era they delegitimise existing political institutions.

Social sciences never exist in a vacuum and it is obvious that the prevailing theories and ways of thinking must always adjust into the crises, problems and challenges of each era. For that reason, the governing theories of our time are now undergoing extensive changes. The window of opportunity for a wider change is now. Whether this change is lost or seized depends on the views and capabilities of social movements, political parties and other groups fighting for a more democratic world.

The central message of this study is that the range of political alternatives is already considerably wider than is usually assumed. Thus, even without any further global democratisation or institutional change, there is more room for politics and democracy than we are being told by pundits, ostensibly neutral experts and other talking heads filling the media space.

However, the struggle for democracy cannot stop at the borders of the nation state. Democracy is fundamentally a principle to organise the social life of human beings. It is not a specific institutional order that can be established or not. Rather, democracy is a process and a value that can motivate and direct political struggle.

Nationalism and democracy have been historically tied together: the construction of an idea of a people which has the right for self-determination has been a powerful tool in the battle for democratic decision-making. Nevertheless, nationalism has now become an obstacle to further democratisation. If we want to extend the opportunities for individuals to influence the powers determining their living conditions and structures of social order, the discrepancy between the open world economy and territorialised politics must be overcome.

I have proposed the Keynes–Davidson Plan as a key step in global democratisation. Such an institutional setting would not impose any particular type of politics: profit-led growth strategies could still be possible and demand management could be based on the regulation of the tax rate if the majority dislikes public investment and public employment schemes. The strength of such plans is that it would better *enable a variety of economic policy strategies* and, thus reinforce key aspects of democracy.

There are certainly many people who would argue that even the Keynes–Davidson Plan will not go far enough in economic democratisation. While that might be true, my focus has here been on the external constraints on state-level economic policy autonomy. Many Marxists would argue that the existence of the ownership of the means of production already creates a fundamental barrier to the realisation of democratic principles as the capitalist class can dictate the conditions of material reproduction, at least to a certain extent. I tend to agree with such notions at a theoretical level, but I also believe that the obstacles for a movement towards any type of true socialism stem predominantly from national capital. It is quite likely that any attempt to socialise the means of production would be met with serious resistance from the owning class regardless of their ability to move their funds or production facilities abroad. So, the question of the external constraints on state-level economic policy is a qualitatively different question from the question of the limits of capitalist democracy.

Another problem is that our political and ecological challenges are acute. If we want to utilise the current historical opportunity to radically reform the existing liberal order to respond to these problems better, we need a set of proposals that are truly transformative but only just operate in the limits of what is realistically speaking possible.

Consequently, we need a better understanding of what is immediately possible within existing political institutions, but we also need visions for the subsequent steps in the process of democratisation. I hope this study, for its modest part, has provided some valuable insights for these challenges.

APPENDIX 1

This appendix presents the full answers from David Law, Layna Mosley and William K. Tabb to my e-mail inquiries about their work relating to bond-market power. I have included my questions only in Mosley's answers since she gave very detailed and specific answers to my questions while Law's and Tabb's answers were general discussions about bond-market power.

The answers are included in their entirety to prove that their e-mail answers are quoted fairly. I have asked for permission to publish the answers.

Layna Mosley:

1) I have been very much influenced by your very thorough and wonderful study about the government bond markets. However, there is one aspect of your study that I have never really grasped: the study does not seem to emphasize the difference between monetarily sovereign and non-sovereign governments (even though you do briefly mention this difference). Some heterodox economists, nevertheless, argue that monetarily sovereign governments can escape the influence of bond markets by financing their spending through their central banks whenever needed. Do you agree with these theorists or do you believe that central bank financing of budget deficits is dangerous in the long run?

> *Certainly, governments are more or less constrained/influenced by bond investors' assessments when they can, for one reason or another, avoid using those markets (avoid issuing debt). There are various pathways through which this might happen – some governments are better able to extract from their own citizens and firms (via taxation); others can draw on natural resource revenues; and still others may simple have less demand/desire to spend (and therefore, they don't need to finance deficits via borrowing). And, yes, governments could certainly print money (assuming they issue their own currency) to finance deficits and debt. For whatever reason, though, most governments have eschewed this strategy in recent decades, preferring instead to pursue low inflation policies, and (often) to make their central banks more independent from elected officials. Although there's not particularly strong evidence that modest levels of inflation (vs. hyperinflation) are detrimental to growth, this has become the received wisdom — so while it may not be terribly detrimental for governments to rely on printing money to fund deficits, the current (and last few decades') ideational climate makes it difficult for governments to pursue. And there's fairly good evidence that governments with higher inflation and/or less politically independent central banks pay more to borrow.*

2) Could you explain why these different theories (e.g. Chartalism/MMT vs. neoclassical mainstream) about the effects of central bank financing of government spending were not so much discussed in your book or the articles you have written about the subject? The whole argument about the power of government bond markets still seems to depend, at least to a certain extent, on the assumption that governments cannot bypass the bond markets by using central bank financing.

> *Fair enough (see above). I don't necessarily assume that governments can't finance in other ways (including CB financing, but also assuming resource revenues or bank borrowing or official finance). I was interested in the set of governments that had – for whatever reason – selected financing via bond markets (so there's a set of decisions prior to that, about issuing bonds as a means of financing, which I didn't explore). While bond market financing became very common beginning in the 1990s, it definitely isn't the only means by which governments can finance their activities (and, indeed, I'm doing some work now on why governments might opt for one sort of financing vs. another).*

3) Do you believe that all governments face an intertemporal budget constraint? Why?

> *I believe that governments are somewhat constrained by their (a) preferences/perceived need to borrow; and (b) their past borrowing behaviour (e.g. their accumulated government debt). But governments' capacity to borrow also reflects the willingness of investors (or other creditors) to roll over debt (and to tolerate high levels of debt). When global capital markets are highly liquid, investors are more risk acceptant/return seeking, so the constraint is lessened (and it's the opposite when global markets have less liquidity). I'd also say that governments often are able to roll over debt (refinance) over many years; as long as governments are able to service the debt, and as long as investors are willing to (at some price, which the government needs to be willing to pay) finance new debt, this inter temporal constraint may not be terribly severe. But, of course, the constraint can become more pronounced, often in response to events (crises) elsewhere, so governments may not be able to accurately predict when or the extent to which they will face this.*

4) Do you generally rely on some specific school of thought within economics? If yes, then why do you prefer this school of thought?

> *No. I'd say that my work is closer to orthodox than to heterodox approaches in economics; but this stems more from the fact that I consider how professional investors evaluate governments, and their*

views tend toward the orthodox rather than the heterodox. But again, my purpose was to explain how markets evaluate governments, rather than to discuss how they should evaluate governments (or how governments should act vis a vis markets).

David Law:

The power of bond markets will vary between countries, with a reserve currency country like the US a rather special case – or it was in the 1980s with the spendthrift Republicans getting away with a lot, aided by the easing of restrictions on capital outflows from Japan. How far Trump -Republican US will be as lucky remains to be seen. Another immediate thought is that post-crisis monetary policy – quantitative easing etc has made it easier than normal for governments to run deficits IF they have the power of QE. In this context looking at the Eurozone could be of interest since they lack that power. Another quick thought is that savings/asset managers have to find a place for trillions so who is favoured and so let off the disciplinary hook? Another would be about China's capital outflows. What if more of the BP [balance-of-payments] surplus is redirected to acquisitions rather than bonds [perhaps the case in 2012-2016] or [as in 2017] restrictions on capital outflows are tightened.

The disciplinary power of bond markets relates not only to governments but firms with fundraising issues being linked to the interest/yield paid.

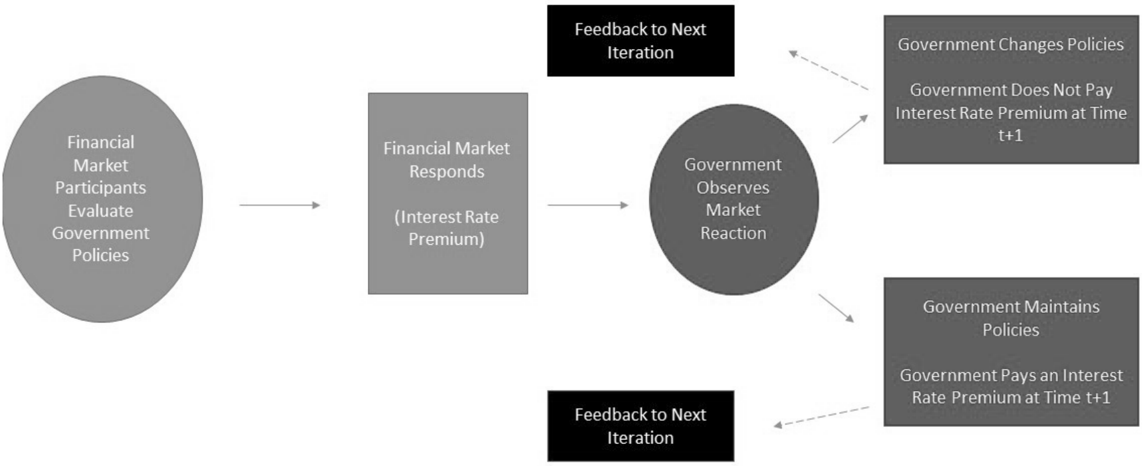
William K. Tabb:

Let me direct you to my 2012 book "The Restructuring of Capitalism in Our Time." Its first chapter is "The Centrality of Finance." The second is "Financialization and Social Structures of Accumulation." The third is "Realism in Financial Markets." It goes on in that vein. It addresses questions you have raised. For me the interesting question is how much the U.S. can increase the ratio of government debt to GDP before there are worries about the dollar. This is a longer run question since there is no viable alternative reserve currency to replace it, but still the extent of fictitious capital looking for returns is a great danger to financial stability as purchase of CDO leading to 2007-8 crash shows. It is, as you imply, dangerous when a country has no control over the currency it uses to have its banks hold huge amount of their own government bonds and this debt becomes unpayable in the eyes of creditors. I agree with the MMT people that governments could bypass bond market and directly finance expenditures with currency issue. It is the politics and whether one trusts governments to do this responsibly.

The book I am now working on does not see much in long run convergence of the system as a whole while recognizing catchup and *focuses on change in sectoral dominance and surplus extraction from declining sectors rather than frame of capacity utilization. I really should read Anwar's recent book, but time is a scarce commodity. But the short answer is capitalism is a revolutionary system of creative destruction a la Minsky, Keynes and Marx which overshoots and bubbles. Stability is a shorter run phenomenon understood within the French within a regulation school perspective and U.S. social structures of accumulation frame. Capitalists are driven by profit maximization (as per your last question), but demand comes from consumers and wages and debt are essential for sales. Marx's reproduction schemes are the basis of stable reproduction and failure whether in Keynes C+I+G+X-M or Marx framework is about required balance for stable growth that the system can theoretically achieve. But its nature does not allow for this for long and so there are crises of overproduction and financial risk taking. Whether a large economy like China (I say" like." but really there is only one China, other BRICs are not in same class) grew from exports and high rate of investment. It is inability to keep this model going given its size that forces turn to domestic demand driven growth effort.*

APPENDIX 2

Figure A.1 Layna Mosley's causal model of financial market–government relations. (Source: Mosley 2003, 15.)



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