

Financialization, money and the state

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Pre-publication version. Published in P Mader, D Mertens and N van der Zwan (eds),
International Handbook of Financialization. London: Routledge, 2020, pp. 56-67.

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January 2019

Introduction

Financialization has heightened the importance of finance for socio-economic life. But different groupings of economists frame the financial sector, and its relationship with the real sector and with the state, very differently. The framing which presumes that free competition will produce the social-optimal outcome has been persistent, and persistently influential, supporting the interests of the financial sector. Although the crisis opened this framing up to public challenge, such that increasing attention, even among central banks, is being paid to socio-economic considerations (e.g. income distribution), addressing financialization continues to be hampered by the view that the financial sector is normally benign.

We will focus here particularly on the problem financialization poses for financial stability, and the scope for a regulatory response, from a Post-Keynesian perspective. This approach, which has a longstanding contribution to the analysis of financialization, differs from the dominant theoretical framework in economics, which is built on market pricing with true prices as the benchmark. The extension of reach of market pricing (stocks rather than bonds, bailing-in rather than bailing-out, etc.), which accompanies financialization, is welcome from this latter perspective. But, from a Post-Keynesian perspective, there cannot even in principle be ‘true prices’ since the future is seen to be fundamentally uncertain. The socio-economic structure and creative behaviour evolve in unpredictable ways, such that future values and risk cannot be quantified. It follows that market pricing cannot be relied upon for socially-optimal outcomes. Rather the state has a central role to play in impeding damaging market forces while supporting socially-beneficial market forces.

However, the strength of the forces for financialization pose particular challenges for the state. Real economic activity relies on finance and a stable financial environment. But, while financialization has extended the reach in society of financial forces (including the potential availability of finance), they have developed in such a way as to be inherently unstable. For centuries the state has acted, to a greater or lesser extent, to temper that instability. But the extent of instability in the recent crisis, and the severity of its real consequences, have brought the role of the state to the forefront of debate. Depending on how they frame finance, different economic approaches come to different conclusions on financial regulation.

How best through regulation and its enforcement can the state enable the positive features of financialization, and how best can it constrain its negative features? Is regulation always to be regarded as a constraint which reduces social welfare? Or can state involvement be a vehicle for protecting powerful financial interests? At different times and depending on perspective, the theory and practice of financial regulation have involved differing emphases on, and interpretations of, these two functions of enabling and constraining. The financial crisis has brought these different perspectives into sharp relief.

It may seem remarkable that we should still be asking whether the financial sector should have special regulation, so soon after the latest financial crisis and with the prospect of another one. Yet the debate continues, and indeed some post-crisis bank regulation is currently being rolled back in the US. So the argument for regulation still needs to be made. In this chapter we will go back to first principles in order to consider why the financial sector needs special regulation, beyond normal company regulation (see further Dow 1996, Kregel and Tonveronachi 2014). How these principles are applied depends on the context, which, in finance, is always evolving.

In particular, we must bear in mind the goals set for the monetary authorities in considering financial regulation. In the decades before the crisis, the authorities focused primarily on targeting inflation, drawing on monetary theory referring to money as bank deposits which in turn were understood as a multiple of reserves. But resulting monetary policy had the unintended consequence of adding fuel to an ongoing process of financialization which had been spurred on by neo-liberal efforts to deregulate the financial sector and to encourage public participation in it. In particular, the financial sector saw opportunities in developing new liquidity and credit instruments outside the regulatory net, i.e. in shadow banking.

But since the crisis the authorities have been forced to prioritise dealing with the financial instability of the crisis and the economic stagnation which resulted from austerity fiscal policy. The monetary authorities now (formally or informally) still aim to promote monetary stability (controlling inflation), but increasingly also financial stability (the degree of volatility in asset prices, and financial conditions more generally) and economic stability (see Braun and Gabor 2019; Thiemann 2019, both in this volume).

How we discuss financial regulation depends on how we understand the way in which the financial sector operates and how it fits in with general economic processes. We will explore in particular

four different approaches which vary in the extent to which they see governments intervening in finance: the neo-Austrian approach, the Sovereign-Money approach, the mainstream New-Keynesian approach and the Post-Keynesian approach. It is important to understand these different framings because they underpin different types of contribution by economists to the policy debate around financialization. The New-Keynesian approach dominates academic contributions, while in practice many recent policy developments actually follow closer to Post-Keynesian principles. At the same time, radical proposals from neo-Austrians and the Sovereign-Money approach are making headway, echoing the discourse of the 1930s (see Weber 2019, in this volume).

Framing Finance

The theoretical perspectives to be outlined below are built on different understandings of the nature of economic and social relations, and in particular of how the financial system works in relation to the real economy. This understanding also determines how ideas are presented and perceived: the framing of finance. There can be framing differences within economics, ranging from differences in meaning of terms, through theoretical differences, to differences in policy recommendations. Framing is a necessary feature of discourse and, in turn is generated and transmitted by discourse. Reality is also framed by the institutional arrangements, conventions and habits which put some boundaries around the scope for acting on knowledge.

Framing can be performative in the sense of altering reality (see e.g. Mackenzie, Muniesa and Siu, eds, 2007). What is regarded as the most sound theoretical perspective influences the framing by policy-makers, finance specialists and by the general public. But it is in turn influenced by the more powerful political and economic forces, notably as exercised by the financial sector. Academic power structures, and thus the direction of research, may be influenced by the dominant framing by government. Government in turn may be influenced by the framing by the financial sector of government deficit finance. The general public may be influenced by government framing in their efforts to understand government policy.

For mainstream economics, finance is understood in terms of conceptual separations; science itself consists of separations, building deductivist models and testing them against independent facts. Deductivism involves establishing axioms (about rational behaviour) and deriving propositions

from them within formal mathematical models which are, by definition, closed systems (where there is a strict separation between endogenous and exogenous variables). The key endogenous variable through which market processes operate is price, where market prices gravitate to ‘true’ prices; the greater the extent of financialization, the more significant is pricing for social and economic life. But a deterministic modelling account of market pricing and the notion of true prices in financial markets require the capacity to quantify risk which is captured in stochastic relationships (see e.g. Dow 2016a).

In contrast to the focus on separation in the mainstream approach, the Post-Keynesian approach emphasises conceptual interaction. This stems from a different way of understanding financial processes, but also a different way of approaching the building of knowledge about those processes. The Post-Keynesian approach to knowledge of financial markets does allow separation (or segmentation) as provisional within theoretical analysis, as a necessary feature of formal models where they are employed. But the framing of these markets emphasises pervasive uncertainty which means that pricing, while informed, is necessarily conventional. Correspondingly, while mainstream analysis uses a strict notion of rationality as its benchmark for behaviour, Post-Keynesian analysis considers behaviour as reasonable, or unreasonable, given uncertainty; ‘rationality’ itself is framed differently. Not only is evidence theory-laden, but it is also performative in driving conventional interpretations. Formal models are useful as aids to understanding, and contributors to knowledge, rather than constituting complete arguments as in mainstream economics. Other styles of reasoning, and input from other disciplines contribute to the economic analyst’s (uncertain) understanding.

This framing of the economist’s knowledge is paralleled in the economist’s understanding of knowledge in the economy. Thus, while mainstream economists posit rational individualistic behaviour (possibly subject to constraints on rationality or information), Post-Keynesian economists posit behaviour which relies on social convention and is inevitably conditioned by sentiment, in the absence of certain knowledge. This view of market behaviour underpins Minsky’s (1982, 1986) theory of financial instability (see Sotiropoulos and Hillig 2019, in this volume).

Further, much can be learned about market behaviour from analysis framed within sociology (Preda 2007) and psychology (Tuckett 2011). Both of these disciplines include strands which, like mainstream economics, have an ‘ideal type’ of agent as a benchmark. But there is a much greater

proportion of work than in economics which draws on a range of evidence as to how agents actually frame their decision-making (under conditions of uncertainty). This latter work feeds readily into the realist Post-Keynesian approach. The difference between mainstream and Post-Keynesian framing of the economist's knowledge and knowledge in financial markets is epitomised by the difference between new and old behavioural economics, respectively (Sent 2004). While the former challenges the rationality axioms on empirical grounds, the aim is to establish new axioms more consistent with the evidence, continuing the closed-system deductivist approach (Dow 2013a).

The monetary authorities frame financial markets in a variety of ways, depending on the audience: government, practitioner or the general public. Successful communication of the central bank's thinking is now a central plank of monetary policy (Geraats 2002). But central banks are also influenced by academic framing of financial markets. At one level, as an independent body, central banks are encouraged to present monetary and financial policy as a technical matter. It is important, then, to frame policy decision-making in a technical, academic way. This reflects the sociological power in economics of the (contested) mainstream idea that it is a technical (value-free) discipline.

But the authorities are influenced by mainstream economic thinking also at the institutional level. The whole idea of separating monetary policy decision-making from fiscal policy decision-making and from financial regulation and its enforcement stems from the conceptual separations discussed above. If, as Post Keynesians argue, monetary policy, fiscal policy and financial regulation and its enforcement are fundamentally interdependent, then institutionally separating them without mechanisms to allow cooperation and coordination can only lead to a suboptimal policy mix.

In the meantime, when policy is presented as the product of expertise, the general public are expected to accept it; indeed treating monetary and financial policy as technical discourages public engagement (see also Nölke 2019, in this volume). Still, the support of economists for deregulating the financial sector has been seen as serving sectional interests, namely those with most to gain from financialization; widening distributions of income and wealth since the crisis are taken as supporting evidence. The economists' claim to be apolitical experts, which Post-Keynesians have long challenged, is being more widely questioned. While central bank communications may continue to be effective with the financial sector, which has a shared view of economists as

technical experts, it is becoming less effective with the general public (see e.g. Earle, Moran and Ward-Perkins 2016).

It is with public discourse in mind that we start our discussion of different approaches to finance with two approaches which have to some extent (as in the 1930s) captured the public imagination. We then proceed to discuss the New-Keynesian approach which has dominated the mainstream theoretical input, and then the Post-Keynesian approach which, while not theoretically dominant, has had considerable impact on the policy discourse.

Four approaches to understanding financialization, money and the state

Opposing views on the role of the state with populist appeal: the Neo-Austrian approach

This approach traditionally builds on the work of Ludwig von Mises and Carl Menger, and more recently Friedrich A. von Hayek, who explicitly advocated the privatization of money (Hayek 1976). Recent contributors (such as Lawrence White, Kevin Dowd, Taylor Cowen, Randall Kroszner and George Selgin) have long advocated free banking, and now blame the recent crisis on state involvement in finance (see e.g. Dowd 2009).

This approach aims to have as little government involvement in finance as possible, relying instead on market forces. The general approach is based on the idea that, even though knowledge, and thus asset pricing, are uncertain, individuals in the market have better knowledge to guide their decisions than does the state. So the role of the state is limited to making sure that markets operate competitively:

If man is not to do more harm than good in his efforts to improve the social order, he will have to learn that ... where essential complexity of an organised kind prevails, *he cannot acquire the full knowledge which would make mastery of the events possible.* He will therefore have to use what knowledge he can achieve, not to shape the results as a craftsman shapes his handiwork, but rather to cultivate a growth by providing the appropriate environment, as the gardener does for his plants (Hayek, 1975, p. 42).

Neo-Austrians see state supply of money as a source of monetary instability, inflation being seen as the by-product of politically-motivated increases in the money supply. They therefore argue for

money to be supplied instead only by the banks in the form of deposits whose value would vary with the value of the banks' assets (which would further fuel financialization). Competition would then determine which bank's deposits were the most appealing to hold as money. There would no longer be any need for a central bank.

As far as finance is concerned, it is argued on the basis of historical study that financial instability in the past has actually been *caused* by state interference. In terms of the recent crisis, the argument is that the state's support of the banks created moral hazard: it encouraged them to take undue risks. If instead banks were allowed to fail if they invested unwisely, their customers would withdraw their deposits when they sensed trouble ahead. In other words the market would be a much more effective discipline on bank behaviour than any regulation (see e.g. Dowd 2009). The latest development to be inspired by this thinking is cryptocurrencies, designed to provide money and a payments system independent of government (Weber 2016).

Opposing views on the role of the state with populist appeal: the Sovereign-Money approach

The second, Sovereign-Money, approach draws on the 1930s arguments (e.g. of Irving Fisher) for full-reserve banking (see Benes and Kumhof 2012), and has been developed in modern form more recently, led by Ben Dyson, Graham Hodgson, Tim Jackson and Frank van Lerven, within the Positive Money organisation (see e.g. Dyson, Hodgson and van Lerven 2016).

According to this approach, bank behaviour, influenced by moral hazard, is the specific root cause of the financial crises. Society's money is mostly in the form of bank deposits, so that deposits are continuously recycled through the banks as payments are settled. This gives the banks the freedom to expand credit at will, with increased money stocks the consequence. Rather than the money supply being controlled by the central bank, it is controlled by the banks: it is endogenous. Since monetary and financial instability are associated (as in the recent crisis) with credit cycles, the cure for both is for the state to take over from the banks the supply of money. Recently the emphasis has been on the possibilities for central banks to issue their own digital currencies (Dyson and Hodgson 2016).

Adopting a monetary theory of inflation, like the neo-Austrian approach, it is argued that state control of the money supply would allow direct control of inflation. Also, it is argued that the banks would no longer be able to cause financial instability. Having lost the power to create money,

and the state support that historically has gone with that, banks would have to accept market discipline like other financial institutions. The Sovereign-Money proposal for the state to establish a monopoly over money would therefore eliminate banking as we know it, without further need for regulation, or even deposit insurance (see e.g. Jackson and Dyson 2012). Like for the neo-Austrians, bank liabilities would then vary in value along with the value of banks' assets, further fuelling financialization.

This proposal has much in common with proposals current in the 1930s for full reserve banking whereby banks would be required to back their deposits 100% by reserves with the central bank (see further Dow 2016b). There have been several variants of these proposals, but the basic principles are the same. In many cases, the vehicle for getting new money into the economy is via fiscal expenditure. In some cases, the system would allow for a negative rate of interest imposed by the state as a means of discouraging hoarding of money. In the case of Sovereign Money, the state would issue money rather than the banks, but the banks would administer it along the payments system. However, the central bank would also coordinate with government by tying money supply to both fiscal policy and to allocating resources to facilitate and direct bank lending in pursuit of social and environmental goals, as well as economic goals. The functions of the central bank are thus envisaged to be much broader than has recently been the case, while, by omission, regulation of the private financial sector, once stripped of traditional banking, is not discussed.

The New-Keynesian approach

The New-Keynesian approach is built on the idea of asymmetric information (and other market imperfections) distorting free market processes, justifying countervailing state intervention. The key initial expression was Stiglitz and Weiss's (1981) application of this idea to rationing in the credit market. The leading figure has continued to be Joseph Stiglitz, who has emphasised the pervasiveness of market imperfections. The approach was generalized with application notably to the labour market, with other contributors including Bruce Greenwald and Gregory Mankiw. Current contributors who have applied the approach particularly to questions of financial instability and bank regulation are Charles Calomiris (2017) and Roger Farmer (2013).

The New-Keynesian approach is what we might call the current mainstream approach to financial regulation, in that it is the one which has lately dominated the theoretical literature and much of the policy debate. Like neo-Austrians and promoters of Sovereign Money, they share a monetarist

view of inflation: that it is caused by changes in the supply of money (although that supply may not be exogenous). The previously-dominant mainstream approaches (Monetarism, then New Classicism) shared the neo-Austrian view that efficient market forces would ensure financial stability. Indeed, because past and current mainstream approaches use models which focus on equilibrium, stability is built into them as the natural place for economies to settle. But there is the crucial difference from the neo-Austrian theory that market forces are portrayed as operating through pricing based on quantifiable risk.

However, the New-Keynesian approach argues that in practice markets do not work perfectly, so that state input is needed to ensure monetary and financial stability (Farmer 2013). In particular, they challenge the view, both of neo-Austrians and of the previous mainstream, that individuals have the knowledge for making the best market decisions. Fundamental uncertainty still does not feature; information on quantifiable risk may be concealed, but is always in principle available. But, in the absence of full knowledge about borrowers' riskiness, banks may ration credit. More significantly, in the run-up to the latest crisis, banks were unable to assess properly the riskiness of the complicated structured market products which ultimately proved to be highly risky. Critically for this approach, since it is in principle possible to measure the riskiness of any asset, given full information, one aim of regulation is to enhance information availability, addressing for example the factors leading creditrating agencies to distort their ratings (see Blinder and Stiglitz, 1983, for an early formulation of this argument).

A further aim of regulation, as with the neo-Austrian approach, is to remove incentives to take on undue risk, notably the promise of central bank liquidity support. The New-Keynesian approach to regulation has thus focused on dealing with bank failure. There has been a push, for example, for banks to issue contingent convertible ('coco') bonds which would in times of crisis convert debt into equity. This reflects the mainstream view that, because they are continually priced in competitive markets, equity is more efficient than debt (especially illiquid bank loans, but also bonds).

Further along these lines, were banks to fail, they should be bailed in rather than bailed out, i.e. the risk of failure should be priced in to their liabilities. Such elements are seen to be desirable features of the resolution mechanisms (or 'living wills') advocated for banks, enhancing in turn the knowledge of risk on the part of depositors. Consistent with the New-Keynesian focus on moral

hazard as a major cause of the recent crisis, there is some support for the Sovereign Money policy of eliminating the traditional banking model by giving the state a monopoly of money production, an idea fuelled by the possibility of a central bank digital currency (Enget and Fung 2017).

There has been growing awareness of network effects, whereby risks associated with one institution or asset can spread to others; these effects are a form of externality with respect to decision-making by any one institution. This is a further form of market imperfection for which New Keynesians have advocated regulatory reforms following the crisis. But Calomiris (2017) offers a critique of reforms which have been adopted, as departing from New-Keynesian principles, the first of which, for him, is that:

Financial regulation should focus exclusively on bona fide objectives that relate to the performance of the financial sector, grounded in core economic concepts of externalities and information costs and supported by evidence that shows that the costs of regulation are justified by demonstrable benefits (Calomiris 2017: 61).

The Post-Keynesian approach

The Post-Keynesian approach builds on a long-standing concern with financialization (although not always using that term), dating from Keynes (1936: ch. 12) and Minsky (1982, 1986). Post-Keynesianism (sometimes termed ‘fundamentalist Keynesianism’) differs from the hydraulic Keynesianism of the neo-classical synthesis and from New Keynesianism, both in terms of understanding of economic processes and in terms of the methodological approach judged most suitable to illuminate this understanding (see e.g. Dow 2013b). Key figures have included Joan Robinson, Michal Kalecki, Nicholas Kaldor, Geoff Harcourt, Victoria Chick, Paul Davidson and Jan Kregel. Post Keynesians have led the modern analysis of financialization, including Eckhard Hein (2012, 2013), Özlem Onaran (see e.g. Onaran, Stockhammer and Grafl 2011), Thomas Palley (2016) and Engelbert Stockhammer (2004). Given the importance of this longstanding contribution to financialization studies, it will be explored in greater detail than the other approaches.

The Post-Keynesian approach differs from the others, not just in terms of its theory of money and finance, and the policy proposals which follow, but also in terms of their basis in the way in which

the economy is understood.ⁱ In particular, the first three approaches involve conceptual separations: notably a separation between the state and the private sector, a separation between money and other assets, and a separation between money and finance on the one hand and the real economy on the other. The state and the private sector are intertwined, not least in terms of the market for sovereign debt and thus the implementation of monetary policy (see Braun and Gabor 2019, in this volume).

More fundamentally, the state provides an institutional, legal and knowledge foundation for the private sector; indeed the state has evolved along with markets to meet society's needs. This is clear from the history of banking. As banking evolved, it became evident that banks operating at the firm level did not normally address the macro level. A central bank instead could see the macro consequences of banks' actions and either attempt to moderate these actions or act to moderate the consequences. Thus confidence in the system as a whole was provided by the central bank providing a lender-of-last-resort facility, so that the liquidity problems of one bank would not spread throughout the system, or indeed so that problems for the banking system as a whole would not cause a crisis. There was an implicit deal (a 'social contract') between the central bank and the banks that support would be guaranteed as long as banks accepted restrictive regulation and supervision to limit the need for support.

When this system worked well, the banks were able to supply society with a stable money asset in the form of bank deposits. Occasionally this kind of system could emerge endogenously without a state-run central bank, as in Scotland in the eighteenth century, when the older banks acted like a central bank towards the newer banks which threatened confidence in the system as a whole. Thus state-like institutions can evolve within the private sector if the state does not meet a need. While this might seem consistent with the neo-Austrian view of endogenous institutional evolution, their focus is on financial markets at the micro level, such that any bank failure can be dealt with by transferring deposits to sound banks. But if in fact there is scope for systemic bank failures, then market discipline is insufficient and, without emergence of a private sector central bank, the system will collapse, leaving society without money.

Post-Keynesianism in relation to the other approaches

This need for a safe money asset is central to the Post-Keynesian theory of money and banking. Since, in contrast with the neo-Austrian and New-Keynesian approaches, Post Keynesians emphasise the importance of most of our knowledge being uncertain; in general it is not possible to calculate the riskiness of any asset. Rather than being concealed, as in the New-Keynesian approach, such measures are unknowable. For Post Keynesians, it is unwarranted under uncertainty to rely for financial stability on market pricing.

Further, where neo-Austrians and proponents of Sovereign Money envisage individuals making their own decisions about how to value their bank deposits, Post Keynesians argue that the ensuing uncertainty would make these deposits unsuitable as money. More generally, as Minsky (1987) argued, the unavailability of true risk measures means that market valuations rely heavily on conventional judgements and are thus subject to wild swings. Since upward swings encourage increased leveraging (i.e. exposure to risk of asset price collapse), the outcome is financial instability as judgements about risks go into reverse and fire-sales of assets make price falls even worse. This was Minsky's Financial Instability Hypothesis.

As society needs a safe asset to hold in times of crisis, or even of increased uncertainty about the value of other assets, money acts as a store of value, a necessary feature of a means of payment. It also acts as a unit of account, which provides a secure foundation for debt and labour contracts. But, while state-issued money normally performs these functions best, the financial sector is adept at providing near-moneys, particularly when the state attempts to control the supply of its own money. The state can attempt to separate its money from rivals by requiring taxes to be paid in it. But the state cannot enforce a separation between its money and other assets, as presumed by the Sovereign-Money approach. Financial history demonstrates the ways in which the financial sector generates assets which are close money-substitutes, bank deposits being a notable case in point. But financialization has promoted the emergence of an increasing variety of assets (such as asset-backed securities) and liquid markets in which they are traded, meeting liquidity needs outside the retail banking system

There is at any time a spectrum of assets with differing degrees of 'moneyness', depending on the degree of confidence in the liquidity of any asset (including the reliability of its expected value). This will vary, not only with market conditions, but also with institutional arrangements such as

what central banks accept as collateral. But near-monies in the form of securities are vulnerable to changing market conditions which can drastically reduce their liquidity. Given the (often opaque) increasing interconnectedness of these markets, the collapse in value of any one near-money can spread throughout the financial system. Not only does this call for tighter regulation of banks to limit exposure to such potential market collapses, but regulation needs to extend its coverage to shadow banks where financialization has encouraged the strongest growth.

The third separation which Post Keynesians avoid is between money and finance on the one hand and the real economy on the other. In the New-Keynesian approach in particular, the two only connect when there is a market imperfection, e.g. credit for real investment projects is rationed because of concealed information about risk. In the Post-Keynesian approach the interconnections are fundamental. Money has the capacity both to enable real activity and to constrain it. It enables by providing a safe asset as the basis for contracts and as a refuge from uncertainty. But by the same token it constrains by providing an alternative to positive expenditure decisions when uncertainty is high. Then effective demand is reduced, creating unemployment. In particular, Keynes argued that the short-termism of financial markets diverted finance from productive investment, with obvious real effects. Finally the financial sector also has real effects when it promotes inequality of income and wealth.

Financialization has strengthened these forces (see e.g. Hein 2012 and Palley 2016). Real capital accumulation has been inhibited by such factors (associated with financialization) as firms' increased reliance on external equity finance and the resulting increased focus of management on maintaining short-term shareholder value. While this reduced investment has weakened effective demand, financialization has supported increased consumption expenditure with household debt and housing wealth, at the same time increasing the financial vulnerability of lower-income households (see Aalbers et al. 2019 and Gonzalez 2019, in this volume). Further, financialization has fuelled a secular increase in inequality of income and wealth, not just between labour and capital, but with a particular skew in favour of the top end of the range whose financial position has benefitted dramatically from the recent decades of financialization. These trends have been analysed and subjected to substantial empirical investigation by Post-Keynesian scholars. For example, Stockhammer (2004) explores the link between financialization and real investment, finding a positive empirical link for the US, the UK and France (though not Germany). Further,

Hein (2013) identifies empirically the nature and sources of the falling labour share of income in a variety of economies during recent decades of increased financialization, while Onaran, Stockhammer and Grafl (2011) relate financialization to income distribution and real investment and consumption in the US (also see Godechot 2019, in this volume).

In terms of the role of the state, Keynes advocated that policy (e.g. on monetary reform) should aim for the efficient promotion of individual liberty and social justice: ‘The outstanding faults of the economic society in which we live are its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes’ (Keynes 1936, p. 372). Keynes thus saw central banking as operating within a wider remit than the narrow inflation-targeting version of monetary stability. Central banks rather were to work side-by-side with government in pursuing their goals. His approach indicates an enhanced role for regulation, given the financial sector’s capacity to provide near-money assets and its inherent tendency to be unstable and to promote a maldistribution of income and wealth.

The Post-Keynesian approach to regulation is not, as with the other approaches, to separate the state from the private sector, the former possibly with a monopoly on money supply and the latter relied upon to promote social welfare through competitive markets. Rather it is to accept the intertwined nature of public sector and private sector banking, to promote a mutually-supportive relationship between the two, to regulate particularly closely the provision of money-assets to ensure their safety, and to be alert to ongoing needs for new regulation as the financial environment evolves. Since Post Keynesians focus on interconnectedness, the three goals of monetary stability, financial stability and economic stability are seen as interconnected, and therefore all are the business of the monetary authorities. Monetary stability is the least important, since a stable economy and stable financial conditions are the main ingredients of low inflation, the money supply being endogenous (see further Dow 2017a).

Concluding reflections on regulation in the wake of the crisis

All four approaches considered here have contributed to the discourse on financial regulation in the wake of the crisis. The neo-Austrian idea of the state completely withdrawing from finance gained little traction during the crisis given the palpable need for some form of state intervention,

but their confidence otherwise in market discipline persists in some policy discussions. In the meantime, central banks are actively considering the Sovereign Money idea of state issue of money, sidelining retail banks (spurred on by the possibilities for a state digital currency). While New-Keynesian theory has been a major force since it dominates in academic economics, it has not dominated policy in the wake of the crisis.

Many of the changes which have been discussed and even introduced in the wake of the crisis in fact appear instead to follow Post-Keynesian principles. New macroprudential regulation aims to ensure more prudent bank behaviour, e.g. imposing minimum capital ratios, leverage ratios and liquidity ratios. There is now also a much greater recognition of systemic risk which cannot be addressed at the level of individual banks. The scope for financial networks to spread financial instability is now monitored and stress tests are now routinely applied in an attempt to identify individual banks' vulnerability to adverse developments at the market level (see Aikman et al 2018 for a review). Functional separation between retail and investment banking is a further measure, designed to focus central bank support only on those institutions which supply society's money. Other forms of market segmentation are being considered, with possibilities for state support; the particular contribution of savings banks, co-operative banks and credit unions is being recognised, and ideas for state-run development banks being pursued. Further there has been discussion of a global tax on financial transactions, building on the original idea for a Tobin tax. While for Post Keynesians such a tax would increase the social efficiency of the financial sector, it nevertheless faces fierce opposition in that it would reduce efficiency in profit-making.

While there is much in common between the understanding of the financial sector of policy-makers and Post Keynesians, the force of mainstream academic input has influenced central banks' conceptual framework. There is widespread support, backed up by non-Post-Keynesian theory, for focusing on eliminating central bank support for banks. Many regulatory reforms have therefore been driven by the continuance of the 'too-big-to-fail' problem (that failure of a big bank would pose an unacceptable systemic risk), without an appreciation of the full significance of uncertainty for systemic risk. Instead much emphasis continues to be placed on minimum capital requirements, relying on the mainstream notion of measurable risk of portfolios. Yet the recent crisis was largely the effect of increased financialization of bank strategies adopted in the face of previous increases in capital requirements (Chick 2013). Indeed, financialization has continued to be evident in

shadow banking, which has expanded apace as a major source of credit and (apparent) liquidity, increasing systemic risk. The clear implication is that regulation needs to keep up, and continue to keep up, to encompass shadow banking as it evolves. The Financial Stability Board is addressing the monitoring of shadow banking, which is a first step, but regulatory action is urgently required. Such regulation will be challenging, not least given the nimbleness of the financial sector, but that is not an adequate argument for no regulation.

For the three non-Post-Keynesian approaches, financialization is only relevant insofar as it applies to bank credit creation. Aside from market imperfections to be reduced by policy, the focus is on the state as the source of banking problems which lead to financial crisis. By implication, without state support the financial sector would be more stable and better able to serve society's needs. Of the groupings we have discussed here, only Post Keynesians focus on concern with the nature, size and influence of the financial sector as a whole, particularly its capacity to cause instability and crisis with profound socio-economic consequences. The role of the state in curbing these tendencies is key. This involves the state, not only in constraining and segmenting financial activity, but also in a more positive vein providing the support necessary for a stable financial environment to serve the real economy.

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ⁱ Post Keynesians share with the Sovereign-Money approach a broader role for the monetary authorities, and also the view that the money supply is endogenously determined by the banks. But otherwise the analysis of the financial sector is very different (see e.g. Fontana and Sawyer 2016).