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# Financialising the State: Recent developments in fiscal and monetary policy

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# Financialising the State: Recent developments in fiscal and monetary policy

## Abstract

Understanding the nature of state financialisation is crucial to ensure de-financialisation efforts are successful. This paper provides a structured overview of the emerging literature on financialisation and the state. We define financialisation of the state broadly as the changed relationship between the state, understood as sovereign with duties and accountable towards its citizens, and financial markets and practices, in ways that can diminish those duties and reduce accountability. We then argue that there are four ways in which financialisation works in and through public institutions and policies: adoption of financial motives, advancing financial innovation, embracing financial accumulation strategies, and directly financialising the lives of citizens. Organising our review around the two main policy fields of fiscal and monetary policy, four definitions of financialisation in the context of public policy and institutions emerge. When dealing with public expenditure on social provisions financialisation most often refers to the transformation of public services into the basis for actively traded financial assets. In the context of public revenue, financialisation describes the process of creating and deepening secondary markets for public debt, with the state turning into a financial market player. Finally, in the realm of monetary policy financial deregulation is perceived to have paved the way for financialisation, while inflation targeting and the encouragement, or outright pursuit, of market-based short-term liquidity management among financial institutions constitute financialised policies.

## Introduction

The financialisation of the state and its institutions is rarely discussed but widely assumed in the literature. After all, it is close to impossible to imagine a shift towards a finance-led accumulation regime without a change in policy and behaviour of public institutions reflecting this increased importance of “the role of financial motives, financial markets, financial actors and financial institutions” (Epstein 2005: 3). Researchers in the field have lamented the relative absence of work on state financialisation (Aalbers 2017, van der Zwan 2014, Stockhammer 2012). Therefore, we address this contradiction, providing a structured overview of the emerging literature on financialisation and the state.

We argue that there are four ways in which financialisation works in and through public institutions and policies: adoption of financial motives, advancing financial innovation (i.e. the promotion and creation of new financial instruments and markets), embracing financial accumulation strategies, and directly financialising the lives of citizens.

We define financialisation of the state broadly as the changed relationship between the state, understood as sovereign with duties and accountable towards its citizens, and financial markets and practices, in ways that can diminish those duties and reduce accountability. But financialisation takes on specific shapes in the two main policy fields of fiscal and monetary policy. Three definitions of financialisation emerge: When dealing with public expenditure on social provisions financialisation most often refers to the transformation of public services into the basis for actively traded financial assets. In the context of public revenue, financialisation describes the process of creating and deepening secondary markets for public debt, with the state turning into a financial market player, seeking returns from financial assets. Finally, in the realm of monetary policy financial deregulation is perceived to have paved the way for financialisation, while inflation targeting and the encouragement or (as in the case of the European Central Bank, ECB) outright pursuit of market-based short-term liquidity management among financial institutions constitute financialised policies.

Our structured review fulfils three essential functions: First, there as yet is no comprehensive review of the contemporary literature on the topic. Several categorisations of the general phenomenon have been put forward in the literature (van der Zwan 2014; Karwowski, Shabani and Stockhammer 2016; Aalbers 2017), but state financialisation is never a principle concern. Second, to outline possible avenues for de-financialisation it is crucial to understand the how and why of state financialisation. Much of the work we discuss here asks about the motives of the state and specific agents of change among public institutions, highlighting the heterogeneity of public entities, which is too often neglected in economists’ work. Finally, we fill an important analytical gap by integrating different strands of research that – often unknowingly – complement each other. For example, the financialisation of sovereign debt management, especially the shift towards a consolidation state (Streeck 2013) and fiscal austerity, induces the financialisation of welfare provision. Observing these two phenomena in isolation, e.g. taking tighter local budgets for

granted, can result in the belief that financialisation of social provision is a welcome opportunity for cash-stripped communities (see Torrance 2009). Thus, our review connects separate research agendas with the aim of a more comprehensive and critical understanding of state financialisation, which in turn helps outline fields for future research.

The paper proceeds as follows: The next section presents the conceptual framework providing the structure for our review. Broadly speaking, we distinguish between the financialisation of fiscal policy and monetary policy. Therefore, sections 3 and 4 deal with the two main dimensions of public finances, i.e. public spending and public revenue. Subsequently, we turn to the financialisation of monetary policy in section 5. We conclude with a brief discussion of the implications of our findings for de-financialisation efforts going forward.

## Conceptualising the Role of the State in Financialisation

The concept of financialisation has gained increasing popularity across the social sciences since the term was coined in the early 1990s. The most widely used definition is probably Epstein's description of financialisation as "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operations of the domestic and international economies" (Epstein 2005: 3). This broad understanding of financialisation has been criticised by some for a lack of focus (Christophers 2015, Michell and Toporowski 2014), while others hailed its ability to generate an interdisciplinary research agenda (Aalbers 2015).

As result, there have been various attempts to categorise financialisation research, providing structured overviews and "making sense of financialisation" (van der Zwan 2014: 99). Three research strands can be distinguished within the financialisation literature: (1) approaches addressing shifts in accumulation regimes, (2) approaches based on shareholder value and (3) approaches focusing on the financialisation of everyday life (see e.g. Krippner 2005, Aalbers 2008, French, Leyshon and Wainwright 2011, van der Zwan 2014).

Change towards a finance-led accumulation regime is difficult, if not impossible, to imagine without some form of financialisation of the state. Nevertheless, a recently published overview article points out that '[r]esearch on the financialization of public and semi-public institutions is still in its infancy' (Aalbers 2017: 13). This contradiction is also picked up by van der Zwan (2014) when she argues that in Marxist analysis the role of the state often remains passive because financialisation is understood as an inevitable result of mature capitalism (see also Krippner 2011). Similarly, in Post Keynesian literature the rentier, i.e. a financial elite pushing for financialisation, is responsible for declining investment rates (Stockhammer 2004, Orhangazi 2008), low wages and employment (Stockhammer and Onaran 2013) and rising inequality (Kus 2012), with the state, at least implicitly, looking on helplessly. Aalbers (2017) argues that the influence of these powerful elites on state institutions and policies underpinning financialisation are often assumed but not analytically demonstrated.

Particularly among heterodox economists the financialisation of the state appears an afterthought. It is sometimes presumed to be part of the shift towards a finance-led accumulation regime through the adoption of neoliberal policies. For instance, van Treeck (2009) distinguishes between firm-level (micro) and more systemic (macro) financialisation research. There appears to be the assumption that public institutions and policy must also be undergoing a financialisation process, since the retrenchment of welfare provision stemming from neoliberal policies - a narrow understanding of state financialisation - is included in the discussion.

Sectoral (macro) analysis of financialisation has found greater favour among heterodox economists. A macroeconomic perspective implies the analysis of sectoral aggregates, i.e. non-financial companies, households, the financial sector, the state and the foreign sector. Strikingly, the public sector is typically omitted. For example, providing one of the few early comparative accounts of financialisation, Lapavistas and Powell (2013) analyse the phenomenon in the US, UK, Germany, France and Japan, considering the financial sector, non-financial companies and households in detail. Neither the foreign sector nor the state figure in the discussion. Providing an account of the 2008 crisis through the lens of financialisation, Stockhammer (2013) focuses on the same countries and macroeconomic aggregates, but introduces capital inflows to incorporate an open economy perspective. The public sector is absent from the analysis by Stockhammer (2013: 49) who admits that 'changes in the state get insufficient attention' in the financialisation literature. A comparative study of European countries by Brown, Passarella and Spencer (2016) argues that financialisation is variegated across the continent. The study focuses on the financial and household sectors, again leaving out the public sector. These omissions are also common in studies of emerging economies. For instance, Ashman, Mohamed and Newman (2013) and Newman (2015) carry out sectoral analyses to assess South Africa's financialisation – once again omitting the public sector.

This paper provides a structured overview of the nascent research area of financialisation and the state, and argues for a greater research focus on changes within the state. For this purpose, we have reviewed works across different disciplines which address the financialisation of the state. We focus on the main functions carried out by state entities: public finance and monetary policy. Since the 2008 crisis, aspects of financial stability, especially financial regulation, are regarded as an integral part of the latter (IMF 2015). Public finances (or fiscal policy) address the balance between state expenditure, mainly social provision, and public income sources. The financialisation of monetary policy on the other hand refers to the institutions and policies representing the monetary policy framework (typically with inflation targeting at its heart) and regulating financial markets to maintain financial stability.

Table 1. *Categorising the Financialisation of the State*

FISCAL POLICY	MONETARY POLICY
Social Provision <ul style="list-style-type: none"> <li>▪ Pensions</li> <li>▪ Health</li> <li>▪ Education</li> <li>▪ Physical infrastructure</li> </ul> Public Revenue <ul style="list-style-type: none"> <li>▪ Sovereign debt management</li> <li>▪ Tax revenue</li> <li>▪ Sovereign wealth funds</li> </ul>	Financial Regulation  Monetary Policy Framework <ul style="list-style-type: none"> <li>▪ Inflation targeting</li> </ul>

We find that there are four main ways how financialisation works in and through public institutions and policies: First, there has undoubtedly been an adoption of financial motives among public institutions. Second, state entities have engaged in financial innovation, promoting and creating investment instruments and new financial markets. Third, governments have engaged in financial accumulation, becoming active market participants that behave increasingly like private firms. Finally, state institutions and policies have directly and indirectly contributed to the financialisation of the lives of their citizens. The question why state institutions have followed financialised policies is more difficult to tackle, and a full answer requires further research. Financialisation is arguably an opportunity for state entities. Two main hypotheses emerge from the literature. It is either an opportunity to surmount budgetary constraints (Trampusch 2017, Strickland 2013, Torrance 2009, Datz 2008) or to push factional interests against established institutions or elites (Trampusch 2017, Davis and Walsh 2016, Lagna 2016). Research here stresses the heterogeneity of state interests among public institutions and their agency in driving the financialisation process. Nevertheless, once financialised motives and tools are taken on board they shape policy and public institutions, leading to regulation which structurally further entrenches financialisation (Preunkert 2017), sometimes even against the interests of the public representatives that advocated them in the first place (Pacewicz 2013).

### Fiscal Policy: Social Provision

The financialisation of social provision and the welfare state, especially physical and social infrastructure, has received considerable attention from academics and civil society. The latter (Aitken 2015, Bretton Woods Project 2010, Caliarì 2016, Hildyard 2012, ODG 2015, Whitfield 2012, World Rainforest Movement 2014) is a result of the prevailing understanding that infrastructure is a public good to be provided by the state. Public works programmes and Keynesian policies have shaped this perception (O'Neill 2013). However, since the 1980s governments have increasingly privatised social provision, a central element of the neoliberal policy agenda (Fine 2009, 2010).

Privatisation has been criticised for jeopardising access to fairly-priced and high-quality infrastructure for all (Mendoza 2016). Neoliberalism, with its focus on creating markets, facilitates the emergence of financialisation (Fine 2009). But there is a danger of portraying financialisation merely as a continuation of privatisation or neoliberalism (March and Purcell 2014).

Some researchers (Aitken 2015, Lis 2015, Teles 2015, Caliri 2016, Mendoza 2016, Seddon and Currie 2016) draw only vague distinctions between financialisation and the implementation of neoliberal policies, especially privatisation. This is misleading, since the emergence of financialisation is neither an automatic consequence of neoliberal policies, nor is neoliberalism necessarily a precondition for the emergence of financialisation, as exemplified by the changing ownership structures within Chinese state-owned enterprises (Wang 2015). By not clearly distinguishing between the two phenomena critiques that financialisation is an unclear and confused concept are validated.

In the following, we review the four ways of state financialisation with regard to social and physical infrastructure. We distinguish the two infrastructure types as is conventional practice (Inderst 2010, OECD 2014). We begin with pension provision, a part of social infrastructure singled out due to the importance of institutional investors in the financialisation process.

### *Pension provision*

Changes in pension schemes have been identified as a driving force behind financialisation (Clark 2000, Toporowski 2000), but it was not so much the emergence of private pension funds as the shift from unfunded pay-as-you-go schemes to (partly) funded schemes that was crucial (Engelen 2003). Funded pensions become large pools of retirement savings (Dixon and Sorsa 2009), demanding profitable and ideally liquid financial instruments in their search for yield (Toporowski 2000).

Proponents of funded pensions (World Bank 1994, OECD 1995, 1996, 1998, European Commission 2000) claim that they provide a more prudent alternative to unfunded pay-as-you-go arrangements, deepen financial markets, nurture financial innovation, reduce risk and boost growth. Critics warn that macroeconomically they foster financialisation (Engelen 2003), spreading systemic risk (Bonizzi and Churchill 2016) and undermining productive investment in the long-run (Toporowski 2000). The large and growing demand for assets by institutional investors causes asset price inflation. In the US, the 'coming of age' of many large pension funds during the 1970s induced a search for profitable investments in the 1990s, which fed the dotcom bubble (Toporowski 2000, Engelen 2003). Since many pension funds are currently in their maturity period they are unlikely to be committed holders of long-term productive investment (Engelen 2002). This might explain why – despite a shift away from equity after the last financial crisis – institutional investors have channelled a rather small share of their funds into infrastructure investment (1%



globally, Della Croce and Gatti 2014), favouring private equity and hedge funds which are likely to fuel the shadow banking sector (Bonizzi and Churchill 2016).

From a microeconomic perspective, funded pensions bring about the financialisation of citizens' everyday life (Langley 2002, Weiss 2015). They introduce the idea that employees should be individually responsible for their retirement, turning pension contribution into deferred consumption (Berry 2014). This narrative – generally prevalent in the debate about welfare privatisation (see Mulligan 2015 for healthcare) – discards the notion that pensions should be collectively provided by society for those unable to work because of age, disability or else. Financialisation introduces insecurity into people's lives, which leads to resistance. The limited initial uptake of funded pensions in the UK (Berry 2014) is arguably a manifestation of such resistance (see Weiss 2015 for Israel), making the success of financialisation crucially dependent on the state (Biondi and Sierra 2017, McCarthy 2014). In the UK, automatic enrolment into funded private pensions was introduced after voluntary uptake was limited (Berry 2014). Regulatory change across OECD countries aiming at more prudent valuations of pension funds' assets and liabilities after the last financial crisis resulted in the inflation of liabilities. This forces pension funds to seek more high-yielding, i.e. more speculative, assets to avoid being classified as underfunded (Bonizzi and Churchill 2016).

There is a general perception that states yield to financial sector lobbying, introducing regulation that favours funded, and privately provided, pension schemes (Klein 2003, Leimgruber 2008, Meyer and Bridgen 2012; Naczyk 2013). Using the example of New Zealand, Trampusch (2017) argues that states – in fact, specific state institutions such as the Treasury – pursue their own economic and financial motives, such as budget balancing and financial deepening, rather than responding to private sector pressure when pushing for financialisation. Thus, more research into the specific motives of governments to follow financialised policies and the exact agents of change is necessary.

### *Social Infrastructure*

Leaving pension provision aside, the financialisation of social infrastructure is a vastly under-researched phenomenon. Private health insurers, as in the US for instance, bear all the characteristics of funded pension funds since they pool their customers' savings for future health expenditure. They therefore also contribute towards the inflation of financial assets (Wray 2009). They engage in financial innovation, engineering new financial instruments, such as high deductible plans and health savings accounts (Mulligan 2015). Private health clinics, alongside universities, have been observed to adopt financialised practices. Hospital corporations for example have been documented to actively engage in mergers and acquisitions, list on the stock exchange and seek financial assets in emerging – and therefore presumably highly profitable – markets such as Turkey (Vural 2016) and Brazil (Bahia 2016).

Research on financialisation of education is almost entirely limited to higher education and the US. US universities have become involved in financial markets. The richest (top 1%) colleges have used the financial markets to generate significant revenue for operations since the 1990s. Simultaneously, US universities across the board raised their debt burdens (Eaton et al. 2016), while purchasing complex instruments such as interest rate swaps (Russel, Sloan and Smith 2016). The latter were speculative, turning into losses once the financial crisis hit. Russel, Sloan and Smith (2016) identify conflicts of interest among university board members, often themselves part of the finance elite, as an important reason for such speculative investment.

Student debt in the US has received much attention in this respect (McClanahan 2011a, 2011b). In this Anglo-Saxon market, the state has fostered the growth of the student loan market. Already in the 1970s student debt became the only form of consumer debt that is government insured, while individuals are prohibited from walking away from it in bankruptcy (Adamson 2009). Since 2010, as private lending to students collapsed due to regulatory changes, the federal government became the main creditor, issuing 90% of all new loans (Eaton et al. 2016), thus directly contributing to the financialisation of students' lives.

In the Netherlands, another well-documented case of university financialisation, the phenomenon is driven by real estate. The trigger was the government's decision to transfer ownership of public real estate to public service providers, i.e. hospitals, schools and universities, to pre-empt future budget burdens (Engelen, Fernandez and Hendrikse 2014). Universities and other public and parastatal entities, struggling with the upkeep and renovation costs, are now being forced to run up debt, sometimes combining it with speculative investments in interest rate swaps (Engelen 2015) and derivatives (Aalbers, van Loon and Fernandez 2015).

Health and education companies have become attractive to financial investors. In the US, the number of proprietary and for-profit colleges either listing on the stock exchange or owned by private equity firms has surged since the early 2000s (Eaton et al. 2016). Similarly, international financial investors have increasingly acquired stakes in hospital providers in emerging economies since the 2000s (e.g. Bahia et al. 2016, Vural 2016). Thus, health and education providers have become financial assets. As discussed in the next section, the same is true for physical infrastructure.

### *Physical Infrastructure*

Without financialised investment arrangements, privatisation of infrastructure was not always particularly attractive to the private sector, as for instance in the case of water (OECD 2009, Marin 2009, Bayliss 2014a). Traditionally, a private sponsor would secure long-term funds using own capital and/or a bank loan, for example. The project would generate revenue for the sponsor through user fees, often including a minimum revenue level guaranteed by the state (as part of public private partnership

(PPP) agreement, Whitfield 2012), but private developers and lenders would be exposed to the risks associated with the construction projects themselves, such as delays and cost overruns.

Financialisation introduced 'structured finance' arrangements, allowing the project developers to minimise their risk. It transforms roads, bridges or water provision from a "physical and productive component of the urban environment into a financial asset defined by risk and return" (O'Brien and Pike 2015a: 14, based on Strickland 2013). Increasingly complex financial instruments such as derivatives based on loans provided for infrastructure projects can be created to generate financial profit, making infrastructure investment attractive to private investors (Hildyard 2012). Over the last decade infrastructure funds have become commonplace (Bayliss 2014a, Hildyard 2012). This means that project developers and financial investors can easily sell their financial assets in secondary markets, reducing risk while pushing up profits during times of asset price inflation (Whitfield 2012).

The limited profitability of public infrastructure become evidence when the presence of private creditors changes the nature of public provision. Social housing infrastructure in the UK is a prime example. Underfunded housing associations are pressured to adopt financial motives, embracing real estate valuations and risk metrics used in the private sector, to attract private capital through bond issuance. The presence of private investors, however, can undermine the purpose of social housing, i.e. providing good quality affordable housing to low-income earners and the unemployed, as some housing associations have started to reduce the number of 'risky' tenants they accept to ensure repayment to creditors (Wainwright and Manville, 2017).

Some researchers have welcomed financialised funding practices as a way to develop infrastructure in a more "economical manner" (Torrance 2009: 817), but most are deeply sceptical of infrastructure financialisation. Focusing on the financialisation of everyday life, Allen and Pryke (2013, backed by Loftus, March and Nash 2016) argue that the financialisation of household water provision turns citizens into human revenue streams, while simultaneously de-politicising the question of how vital infrastructure should be provided. With a more systemic criticism in mind, Fine (2009) points out that the transformation of infrastructure into financial assets creates instability, opening the door for financial speculation. For example, privatised and financialised UK water providers have seen ever-increasing debt burdens on their balance sheets (Bayliss 2014b). Since debt is cheaper than equity, rising debt burdens increase profit margins and generate funds for distribution to shareholders. The state is vital in this process because its implicit backing of water providers, who are too big to fail, allows water companies to hike up debt while holding on to stable credit ratings.

## Fiscal Policy: Public Revenue

Tax revenue and sovereign debt issuance are the main sources of income in the public sector. Since the 1980s, with declining tax takes public debt burdens have risen in many rich countries, elevating the importance of sovereign debt management (SDM). Streeck (2013) describes this development as a shift from the tax state, which mainly finances expenditure through taxation, to the debt state, which finances rising expenditure demands through growing debt. The growth of financial markets since the 1980s, when rich country governments, while eager to support corporate profitability, increasingly came under pressure to fulfil rising social welfare needs, was an opportunity for states to address the two conflicting demands (see also Plihon 1996 and Krippner 2011). Hence, rising public debt burdens are a symptom of financialisation. Fastenrath, Schwan and Trampusch (2017) argue that the way in which governments raise and manage debt together with the structural composition of public debt have changed, reflecting this aspect of state financialisation. Thus, the financialisation of the state turned public debt into actively traded financial assets, deepening secondary markets, while the state assimilated financial motives and became an innovative financial market player, aiming to reduce the cost of its debt portfolio.

Prior to the 1980s, governments typically had long-standing relationships with specific financial investors who acquired government bonds (or provided credit) with the intention of holding the debt to maturity (Preunkert 2017). As needs for debt financing became more pressing, some governments encouraged a wide range of financial institutions to purchase their bonds so as to reduce yield and therefore the cost of debt financing, while nurturing secondary markets for government bonds. States, thus, gave up their passive book keeping role in SDM, instead becoming market players and creators, while increasingly resembling private-sector investors.

A symptom of this transformation was the shift of most OECD countries away from syndicate placement of bonds with a trusted group of investors towards bond auctions (Fastenrath et al. 2017). The importance of foreign investors also grew as international financial markets integrated and market-based accounting techniques, e.g. accrual accounting, were copied (Fastenrath et al. 2017, Preunkert 2017). Financial motivations were internalised by SDM institutions over time, epitomised in the emergence of specialised debt management offices (DMOs) (Fastenrath et al. 2017, Preunkert 2017, Trampusch 2017). DMOs took on an active role promoting their national government bonds while aiming at reducing debt servicing costs through the use of financial instruments such as interest rate derivatives.

The promotion of government bonds has become crucial within the Eurozone, where countries issue national debt in the same currency, directly competing among each other. European institutions – such as the ECB and the European Monetary Union (EMU) – undoubtedly, contributed to the financialisation of public finances in the Eurozone (Preunkert 2017, Trampusch 2017, Lagna 2016). However, it was not merely instrumentalised by transnational finance elites to push their agenda, as sometimes argued (Bieling 2013). Factions within member states utilised the (perceived) pressure of the EMU to further their domestic agendas. In Germany the

expected competition in bond issuance was used by the Ministry of Finance together with Frankfurt-based finance elites to push for a financialisation of SDM. This elevated their political and geographical influence, while breaking the stronghold of the German Bundesbank, hitherto the bookkeeper of government debt and a staunch opponent of innovation in SDM (Trampusch 2017). In Italy, the Maastricht criteria, calling for fiscal restraint, were used to weaken the political influence of right-wing and industrial elites who abused fiscal profligacy. Lagna (2016) argues that state financialisation, i.e. the adoption of financially innovative strategies to manage public revenue, was embraced as tool for state management.

Other perceived threats can equally be instrumentalised to legitimise financialised policies. In the UK, the threat of stagflation was utilised by the Treasury and the Bank of England to implement policies that displaced the Department of Trade and Industry as the leading policy maker, shifting power purposefully away from industry towards finance with the claim that it would fix the failed orthodox Keynesian policies of the 1960s and 1970s (Davis and Walsh 2016). Thus, there is an increasingly broad agreement that governments have been actively pursuing financialisation (Trampusch 2017, Preukert 2017, Livne and Yonay 2015, Davis and Walsh 2016, Lagna 2016, 2015), in contrast to what “most observers have acknowledged” in the past (Davis and Walsh 2016: 666).

While the expansion of debt burdens at the national level favoured the financialisation of public revenue, fiscal consolidation or austerity intensified this trend, pushing it down towards the regional and local scale. The most extreme manifestation of this downward pressure is tax incremental finance (TIF), which is extensively utilised by municipalities almost all across the US (Ashton, Doussard and Weber 2012, Pacewicz 2013) and by some UK cities (Strickland 2013). TIF effectively securitises future property tax revenue for a specific geographical area, i.e. the TIF district, providing safe collateral for creditors while offering a more favourable impact on cities’ credit ratings than direct borrowing. The securitisation of tax revenue (rather than public debt) gives the financialisation of public finances a new qualitative dimension in the US as property taxes are the main source of taxation in many municipalities. Thus, cities hand over their main source of future income to financial investors. Since the 1970s municipal budgets in the US – like in many other rich countries – have come under pressure as the relationship between cities and the state/federal level changed, reflecting neoliberal retrenchment, facilitating this process. Interest rate swaps are another financially innovative product used by municipalities to prop up their finances (see Tickell 1998 for the UK, Hendrikse 2015 for Germany, and Lagna 2015 for Italy).

Some suggest that financialisation of federal and municipal finances is an opportunity for governments to independently generate income (Ashton et al. 2012, Strickland 2013), while using financialisation as a policy tool to push through specific interests (Lagna 2016). With a view to the global South, Datz (2008) celebrates financial accumulation through sovereign wealth funds SWFs), a non-traditional means of raising public revenue, as chance for commodity-rich emerging economies to generate revenue while becoming market investors. Dixon (2009), in contrast,

calls SWFs out for what they are: a sign of state financialisation ‘wherein policy makers’ “passions” to maximise power are increasingly tempered by their new “interests” in maximising profit’ (Dixon 2009: 303).

There are several flaws in the arguments behind these enthusiastic calls to embrace state financialisation because the latter causes uneven growth, undermines democratic oversight and raises inequality. The ability of governments – both at the national or sub-national level – to utilise financial innovation to their benefit will be uneven (Weber 2010). While some countries, regions or cities might be able to profit from deeper markets for government bonds or municipal TIFs, others will be left behind by either losing out on speculative deals or by not being deemed attractive outlets for financial investment (Peck and Whiteside 2016, Halbert and Guironnet 2014). At the country level this was visible during the Eurozone sovereign debt crisis when Germany enjoyed negative yields on its bonds, while the Eurozone periphery faced rising costs. Emerging economies are regularly confronted with such financing problems. Hardie (2011) argues that encouraging the financialisation of sovereign debt markets undermines debt sustainability in poorer countries because of the structural volatility of private capital flows (see also Tyson and McKinley 2014), limiting countries’ capacity to take on public debt.

A major problem of financialised public revenue is how it serves to undermine democratic oversight. DMOs have been set up independently from extant government institutions, mimicking private sector financial institutions in structure and pay scales (Fastenrath et al. 2017). Their portfolios and transactions are often neither disclosed to the public nor to democratically elected representatives (Piga 2001). Similarly, sovereign wealth funds in many developing countries are set up as independent institutions, often emulating private-sector financial investment strategies (Sovereign Wealth Funds Institute 2012, Olawoye 2016). At the municipal level, budget decisions when linked to TIFs are mainly shaped by unelected financial professionals (Pacewicz 2013). Thus, technical complexity and financial expertise justify reduced democratic scrutiny where financialisation enters public revenue generation.

But the democratic deficit introduced by state financialisation goes further: how public revenue is raised directly impacts how public expenditure is shaped and welfare policies are designed, most visible in the instrument of social impact bonds. Designed to attract private financial investors with allegedly humanitarian motivations (Dowling 2017), social impact bonds finance welfare provision in the UK, e.g. programmes tackling rough sleeping (Andreu 2016). The private investor provides funding upfront and is repaid with interest when a specified social service is delivered successfully and measurably by a private (often not-for-profit) provider. Because the underlying social service is designed to fit the tradable financial asset it tends to run for a shorter period (Andreu 2016) with often socially problematic but measurable aims (Dowling 2017). Thus, social impact bonds exemplify the conflict of interest that financialisation bestows on governments. The state acting as sovereign will have duties that conflict with the interest of the state acting as financial market player (Livne and Yonay 2015). Streeck (2013) captures this contradiction of state

financialisation by arguing that the demands of the people (Staatsvolk), i.e. ordinary citizens, for social welfare directly clash with the market people (Marktvolk), i.e. financial investors who ask for welfare retrenchment to ensure public debt repayment.

Finally, it appears cynical to speak of opportunities when especially lower tiers of government are forced into financialisation through the adverse impact of austerity policies on their budgets (e.g. Hendrikse 2015). Austerity, or the consolidation state (Streeck 2013), was preceded by declining tax rates and tax takes since the 1970s, which required persistent budget deficits to maintain social provision. This shift of government revenue towards debt financing allowed for large wealth accumulation among the rich in OECD countries. Thus, there is evidence that financialisation directly contributes to income inequality since it is the wealthy who benefit most from investment in public bonds (Hager 2014, Whitefield and Peck 2013).

## Monetary Policy

The section is organised chronologically, interrogating decisions about monetary policy and financial deregulation of the 1970s-80s, 1990s-2000s and the period since the financial crisis as to their meaning for financialisation across the globe. The differences in room for manoeuvre between governments in the global South and those in the global North are stark. The former are even more constrained by financialisation in their monetary policy than in the area of public finance.

### *The 1970s and 1980s*

The deregulation of financial markets takes a central role in financialisation theories. Especially approaches influenced by Marx's thought – world systems theory (Arrighi 1994), the monopoly capital school (Magdoff and Sweezy 1983) and the French regulationists (Aglietta 1990, Plihon 1996, Orléan 1999) to name a few – see the liberation of finance starting in the 1970s as the rich states' answer to the socio-economic crisis at the end of the Fordist era (Krippner 2011). On the international plane, the breakdown of the Bretton Woods system of fixed exchange rates, underpinned by restricted international capital mobility, is understood as the catalyst for the advent of financialisation (Luo 2017, Orhangazi 2014, Lapavitsas 2009, Plihon 1996). The United States' unilateral decision to terminate its guarantee of converting dollars into gold in 1971 turned the dollar into a fiat currency, while effectively ending the international monetary and exchange rate system of the previous 25 years or so. Marxist authors (e.g. Luo 2017, Shaik 2016) consider this moment of abandoning gold as an anchor for money as the origin of financialisation, since credit extension could now soar, allowing for an expansion of the finance industry decoupled from growth in production.

While some authors stress that loosening restrictions on cross-border capital flows were an inevitable reaction to facts created by US companies who had already

internationalised their (financial) operations (Orhangazi 2014), others see the agency of rich-country states as central. Confronted with slowing growth and tax revenue, the increased need for debt financing of public expenditure meant that opening up domestic capital markets for foreign investors was in the interest of countries such as for example the US (Krippner 2011), France (Plihon 1996) or Germany (Streeck 2013).

Few authors would, however, claim that states' loosening grip on financial markets was a deliberate move to financialisation (see for instance Gowan 1999, Dumenil and Levy 2004). Rather, financialisation was an unintended consequence of state action, grappling with adverse macroeconomic circumstances (Luo 2017, Krippner 2011). This is exemplified in changes to domestic financial regulation. In the US, for example, hitherto established caps on depositing and lending interest rates, standardly used across rich and poor countries alike, were removed since retail banks were becoming unprofitable in a high inflation environment (Lazonick and O'Sullivan 2000). As deregulation went on, lobbying by the finance sector grew more effective the weaker trade unions became and the more left-wing parties moved away from their traditional electorate (Witko 2014). Thus, an important aspect of financialised monetary policy is the deregulation of international and domestic financial markets. While it paved the way for financialised monetary policy in rich countries, it was not instrumental in bringing about financialisation.

The role of deregulation, i.e. especially financial liberalisation, differs when dealing with the global South. Here, financialisation is sometimes described as 'subordinated' (Kaltenbrunner and Painera 2017, Powell 2013, Lapavitsas 2013, Becker, Jäger, Leubolt and Weissenbacher 2010), i.e. shaped by financialised activity in core countries such as the US. Financial liberalisation, i.e. the deregulation in particular of financial accounts and the opening up of domestic financial markets for foreign investors, is frequently identified as driving force behind domestic symptoms of financialisation (e.g. corporate short-termism, see Rossi 2011, Demir 2007). This gives the phenomenon a strongly external character in these economies, with limited agency for domestic governments who are often described as subject to pressure from, first, the World Bank/IMF (Lapavitsas 2009) and subsequently from international investors (Hardie 2011). This is hardly surprising given the aggressive stance the World Bank/IMF took since the 1980s, advising developing countries to reform their financial systems and dramatically reduce government regulation in order to get 'interest rates right' (Long 1990: 169, World Bank 1989). Nevertheless, there is a small number of contributions, which stresses the local embeddedness of financialisation in the global South, arguing that there are in fact powerful domestic political economy reasons for financial deregulation (see Rethel 2011 on Malaysia).

Once restrictions on international capital mobility were lifted, high interest rates were introduced in the US as part of the Volcker experiment in a bid to attract financial inflows (Krippner 2011), while combatting inflation. Federal funds rates of close to 20% made financial investment more lucrative than productive enterprise, which constituted a financialised monetary policy. This pushed up the profitability of financial firms (Dumenil and Levy 2005), meaning that industrial capital lost out at the



expense of finance due to the high interest rates of the 1970s and 1980s (see Artigis and Pitelis 2001 for evidence for the UK and US). For poorer countries, high interest rates in the 'core' paired with international capital mobility meant a reversal of capital inflows, triggering a lost decade across Latin America and Africa, where governments were confronted with currency and sovereign debt crises (Heintz and Balakrishnan 2012, see Correa, Vidal and Marshall 2012 for Mexico).

### *The 1990s and early 2000s*

In the late 1980s, the monetary policy regime in the US underwent a fundamental shift towards looser policy. The 'Greenspan put', i.e. the expansionary policy embraced by the Federal Reserve in response to the 1987 stock market crash, heralded this shift. Increasing monetary liquidity became the standard response to macroeconomic slowdown in the US (Crouch 2009, Bonizzi 2017). This new policy stance fuelled asset price inflation, particularly in stock markets and residential housing, both key aspects of financialisation (Zhang and Bezemer 2014, Hudson 2010, Toporowski 2000, Clarke 2000). Crouch (2009) argues that loose monetary policy was instrumental to ensure the asset-based welfare of lower and middle classes given the rollback of social provision in favour of (financial) market-based services. Thus, low interest rates in the US have fuelled asset price inflation, a major aspect of financialisation.

Despite this shift towards accommodating monetary policy in the US, the 1990s brought about the formal introduction of inflation targeting across the globe. While macroeconomic policies in the global North had already shifted emphasis away from full employment towards low inflation during the 1970s and 1980s, inflation targeting and central bank independence were formally only implemented throughout the 1990s. Epstein (2001) argues that these so-called rule-based monetary policies, which claim to improve growth and employment outcomes, are financialised. Claims about their beneficial effects on growth and employment outcomes are hardly backed by supportive empirical evidence, while they have been shown to benefit rentiers, i.e. financial investors, and reduce democratic accountability of monetary policy. This argument has been echoed in the context of the global South (e.g. Epstein and Yeldan 2008, Isaacs 2014), where inflation targeting has been on the rise as monetary policy framework since the late 1990s. Tellingly, the inflation-targeting framework does not take into account asset price inflation (Epstein and Yeldan 2008), a financially destabilising dynamic, but one that is in the interest of financial investors and arguably was deliberately fuelled by Greenspan in the US. Thus, during the 1990s, central banks across the globe have internalised the financial motives of private investors and creditors through inflation targeting, aimed at preserving the value of financial investments, which would be eroded with stronger increases in the price level.

In the 1990s, interest rates in rich economies came down to more moderate levels. However, the lower-ranking position of poorer countries' currencies in the international hierarchy meant increased exchange rate volatility and financial crises for the global South, where countries had bought into, or been forced into, financial

liberalisation (e.g. Vernango 2007, Arestis and Glickman 2002). In response, central banks across the global South started building up large foreign exchange reserves (Paincera 2009, McKinley and Karwowski 2015). Thus, in a financialised international system, characterised by large volumes of international capital flows, poor countries hold rich-country sovereign debt. They are entangled in the deepening of sovereign debt markets pursued by rich governments, effectively subsidising the global North (Ocampo 2007, Paincera 2009).

Gabor (2010a) shows that these central banks had in fact no other choice than building up large reserves given their dependence on foreign financial inflows to balance persistent trade deficits. The case of Central Eastern Europe, where Western European banks have increasingly entered the market since the 1990s, is illustrative. Domestic banks there adjusted their practices to a market-based banking model (Hardie, Howarth, Maxfield and Verdun 2013) based on short-termism rather than patient capital (Gabor 2010a). Commercial banks borrow abroad in the anticipation of domestic sterilisation operations of the central bank, which allow them to purchase high-yielding domestic government bonds. Sterilisation operations are motivated by monetarist claims about the inflationary impact of foreign inflows, leading the central bank to aim to absorb perceived excess liquidity in the domestic market (Gabor 2010a, 2010b). However, they constitute an opportunity for financial investors to profit from carry trade, e.g. borrowing cheaply in Euro while investing in domestically-denominated sovereign debt with a higher yield. In the aftermath of the 2008 financial crisis the Romanian Central Bank attempted to break this cycle by only sporadically undertaking sterilisation operations. In consequence foreign inflows dried up, forcing the country into the IMF's lending facility (Gabor 2010b). Hence, Gabor (2010a: 256) argues that central banks in the global South play a direct role in the "financialization of money markets by offering high yields on sterilization instruments".

In rich countries the securitisation of assets, mainly consumer loans, has increased markedly since the early 2000s. In the US, where this phenomenon was most pronounced, the then head of the Federal Reserve lauded securitisation of mortgages, consumption credit and car loans as 'constructive innovation' allowing households with limited means to take part in their purchase (Greenspan 2004). These securities got closely entangled with banks' liquidity management, as regulation incentivised US financial institutions to maintain precautionary liquidity (Knafo 2009). This meant that banks and financial firms used asset-backed securities (ABS) in short-term borrowing operations (i.e. repo agreements), where cash was swapped against securitised collateral with the understanding that the ABS would be repurchased when the repo matured (Gabor and Ban 2015). The US Federal Reserve and the Bank of England used repos and the market practices that came with them (e.g. mark to market accounting and margin calls) in their lending operations to commercial banks (Whelan 2014). After the burst of the dot-com bubble repo markets expanded significantly in the US in response to loose monetary policy (Gorton and Metrick 2009), fuelling 'securitised banking' (Gorton 2009). This type of banking is characterised by short-termism rather than patient capital and

therefore a facet of financialisation (Gabor 2010a). Once again, financial regulation encouraged financialisation in the US.

### *Monetary policy since the financial crisis*

'Securitized banking' has nowhere been as strongly encouraged by policy makers as in the Eurozone (Gabor and Ban 2015, Hübner 2016). This goes back to the early 2000s, but was most visible in the aftermath of the financial crisis. Historically, the European Commission and the European Central Bank (ECB) together have been important drivers behind financial deregulation in the European Monetary Union (EMU), often pushing for an emulation of US financial practices without much concern for financial stability (Graul 2011). The financialisation of monetary policy, i.e. a push for 'market-based' or 'securitized banking', was pursued with the intension to bring about integration across the Eurozone (Hübner 2016). The European Commission's 2002 Financial Collateral Directive, which instructed Eurozone members to remove all restrictions to the cross-border use of repos, was instrumental. Within the Eurozone repo trades are mostly carried out using sovereign bonds as collateral (Gabor and Ban 2015). The ECB and European Commission favoured an environment in which yields on Eurozone public debt converged and sovereign bonds, regardless from which Eurozone member, could be used interchangeably. Influenced by the collateral practice of the ECB (Gabor and Ban 2016), which treated all Eurozone sovereign debt equally, this situation was achieved by 2008 (BIS 2011, Hördahl and King 2008). The financial crisis fragmented this Europeanised repo market again, sparking concerns about the interchangeability of Eurozone public debt. During this time of financial turmoil the ECB arguably behaved like a private investor in the repo markets, focusing on securing adequately-priced collateral, rather than ensuring financial stability in its role as lender of last resort (Gabor and Ban 2016). This is exemplified in the ECB's embrace of private-sector practices such as mark to market accounting and the adoption of haircuts. In 2011, the ECB undermined the position of the European 'periphery' governments by implementing increased haircuts on their debt in repo dealings. Such actions can induce pro-cyclical effects since the response of other market participants will be to sell off the affected sovereign debt, adversely impacting its value. Thus, the ECB's mimicking of financialised practices used by private sector participants directly undermined its duties as monetary policy maker.

Repo markets in the Eurozone are considerably smaller than in the US. By 2013, the ECB and European Commission were once again pushing actively for their deepening (Hübner 2016). This was underscored by the European Commission's delegated acts 'Solvency II', which sought to lower capital requirements for securitized investment products, and 'Liquidity Coverage Ratio', which classified ABS as highly liquid assets. More regulation to support securitisation was brought on the way in 2015, and was under discussion by the European Parliament in 2016 (Hübner 2016). Thus, it seems that the ECB has returned to its role as sovereign integrating European financial markets. Given the large volume of ABS collateral on its balance sheet, a legacy of liquidity provision to Eurozone banks during the recent financial

and sovereign debt crises, it is however also in its interest as financial (and financialised) investor to recreate liquid markets for securitised products.

## Conclusion

This paper shows that the financialisation of the state, i.e. the changed relationship between the state and financial markets that can diminish the sovereign's duties and accountability towards its citizens, is well-advanced across many rich and poor countries. Given the potential negative consequences of state financialisation on growth, equality and democratic accountability within societies and across the globe, it is worth considering how action towards de-financialisation could be taken. For this purpose we briefly turn to two empirical examples of de-financialisation.

Regarding social provision, regulatory change in higher education has the potential to bring about de-financialisation. For-profit, and particularly stock exchange-listed, universities in the US experienced a decline in their total profits in 2011 after the Obama administration restricted rules on their recruitment of students receiving federal funding (Eaton et al. 2016). Here the resistance of the financialised citizens played an important role and promises some potential for exercising pressure by voters. Student protests against rising tuition fees and privatisation in the US (McClanahan 2011a, 2011b), but also in Europe (Engelen 2015), are signs that students understand the increasing 'financial control' (Adamson 2009) to which they are subject and oppose it.

Another example of de-financialised practices is the reintroduction of the syndication method among small Eurozone countries for placing sovereign bonds in the late 1990s and by Germany, France and Italy in the early 2000s (Preunkert 2017). Refocusing on long-term relationships with trusted financial investors was a means of reducing risks and gaining support from private investors in the face of increased uncertainty expected from the introduction of the common currency. So de-financialisation of public policies and institutions is possible, perhaps especially so when backed by democratic pressure.

## References

- Aalbers, M. 2015. The potential for financialization. *Dialogues in Human Geography*, 5(2), 214-219
- Aalbers, M. 2017. *Corporate financialization*, Richardson, D., Castree, N., Goodchild, M.F., Kobayashi, A.L. and R. Marston (eds) *The International Encyclopedia of Geography: People, the Earth, Environment, and Technology*, Oxford: Wiley, 1-11
- Aalbers, M., van Loon, J. and R. Fernandez. 2017. The financialization of a social housing provider, *International Journal of Urban and Regional Research*, 41(4): 572-587
- Adamson, M. 2009. The financialization of student life: Five propositions on student debt, *Polygraph*, 21, 97-110
- Aglietta, M. 1990. Intégration financière et régime monétaire de l'étalon-or, *Revue d'Economie Financière*, 14, 25-51
- Aitken, R. 2015. *Fringe finance: Crossing and contesting the borders of global capital*, Abingdon, Routledge
- Allen, J. and M. Pryke, 2013. Financialising household water: Thames Water, MEIF, and 'ring-fenced' politics, *Cambridge Journal of Regions, Economy and Society*, 6(3), 419-439
- Andrade, R.P. and D.M. Prates. 2013. Exchange Rate Dynamics in a Peripheral Monetary Economy. *Journal of Post Keynesian Economics*, 35(3), 399-416
- Andreu, M. 2016. *A responsibility to profit? Social impact bonds as a form of humanitarian finance*. Paper presented at the workshop Everyday Humanitarianism: Ethics, Affects and Practices, London School of Economics and Political Science (LSE), London
- Arestis, P. and M. Glickman. 2002. Financial crisis in Southeast Asia: Dispelling illusion the Minskyan way. *Cambridge Journal of Economics*, 26(2), 237-260
- Argitis, G. and C. Pitelis. 2001. Monetary policy and the distribution of income: Evidence for the United States and the United Kingdom. *Journal of Post Keynesian Economics*, 23(4): 617-638
- Arrighi, G. 1994. *The long twentieth century: money, power, and the origins of our times*. London; New York: Verso
- Ashman, S., Mohamed, S. and S. Newman. 2013. *Financialisation of the South African economy: Impact on the economic growth path and employment*. (UNDESA Discussion Paper). Geneva: United Nations Department of Economic and Social Affairs
- Ashton, P., Doussard, M. and R. Weber. 2012. The financial engineering of infrastructure privatization, *Journal of the American Planning Association*, 78(3), 300-12
- Bahia, L., Scheffer, M., Tavares, L. and I. Braga. 2016. From health plan companies to international insurance companies: changes in the accumulation regime and repercussions on the healthcare system in Brazil, *Cadernos de saude publica*, 32(2), 1-13.

- Bayliss, K. 2014a. The financialization of water. *Review of Radical Political Economics*, 46(3), 292-307
- Bayliss, K. 2014b. 'Case Study: The Financialisation of Water in England and Wales', FESSSUD Working Paper no. 52
- Becker, J., Jäger, J., Leubolt, B. and R. Weissenbacher. 2010. Peripheral financialization and vulnerability to crisis: A Regulationist perspective. *Competition and Change*, 14(3-4), 225-47
- Berry, C. 2016. Austerity, ageing and the financialisation of pensions policy in the UK. *British Politics*, 11(1), 2-25
- Bieling, H.J. 2013. European financial capitalism and the politics of (de-) financialization. *Competition & Change*, 17(3), 283-98
- Biondi, Y. and M. Sierra. 2017. Pension management between financialization and intergenerational solidarity: a socio-economic analysis and a comprehensive model, *Socio-Economic Review*, mwx015, <https://doi.org/10.1093/ser/mwx015>.
- BIS 2011. *The impact of sovereign credit risk on bank funding conditions*. CGFS Paper No 43, Zurich: Bank of International Settlement
- Bonizzi, B. 2017. International financialisation, developing countries and the contradictions of privatised Keynesianism, *Economic and Political Studies*, 5(1), 21-40
- Bonizzi, B. and J. Churchill. 2017. Pension funds and financialisation in the European union, *Revista de economía mundial*, 46, 71-90
- Bretton Woods Project, 2010. *Social insecurity. The financialisation of healthcare and pensions in developing countries*, London: Bretton Woods Project
- Brown, A., Spencer, D. and M. Veronese Passarella. 2015. *The nature and variegation of financialisation: A cross-country comparison*, FESSSUD Working Paper no. 127
- Caliari, A. 2016. *Financing infrastructure in financial markets: Why civil society should be alert*, Cape Town: Heinrich Böll Stiftung Southern Africa
- Christophers, B. 2015. The limits to financialisation, *Dialogues in Human Geography*, 5(2), 183-200
- Clark, G. L. 2000. *Pension fund capitalism*. New York: Oxford University Press
- Correa, E., Vidal, G., and W. Marshall. (2012). Financialization in Mexico: Trajectory and limits. *Journal of Post Keynesian Economics*, 35(2), 255-75
- Crouch, C. 2009. Privatised Keynesianism: An unacknowledged policy regime. *The British Journal of Politics & International Relations*, 11(3), 382-99
- Datz, G. 2008. Governments as market players: state innovation in the global economy. *Journal of International Affairs*, 35-49
- Davis, A. and C. Walsh, 2016. The Role of the State in the Financialisation of the UK economy, *Political Studies*, 64(3), 666-82
- Della Croce, R. and S. Gatti. 2014. Financing infrastructure—International trends, *OECD Journal: Financial Market Trends*, 1, 123-38
- Demir, F. 2007. The rise of rentier capitalism and the financialization of real sectors in developing countries, *Review of Radical Political Economics*, 39(3), 351-59
- Dixon, A.D. and V.P. Sorsa, 2009. Institutional change and the financialisation of pensions in Europe, *Competition & Change*, 13(4), 347-67

- Dowling, E. 2017. In the wake of austerity: social impact bonds and the financialisation of the welfare state in Britain, *New Political Economy*, 22(3), 294-310
- Duménil, G. and D. Lévy. 2005. Costs and benefits of neoliberalism: A class analysis. Epstein, G. (Ed): *Financialization and the world economy*, Cheltenham: Edward Elgar
- Eaton, C., Habinek, J., Goldstein, A., Dioun, C., Santibáñez Godoy, D.G. and R. Osley-Thomas. 2016. The financialization of US higher education, *Socio-Economic Review*, 14(3), 507-35
- Engelen, E. 2002. Corporate governance, property and democracy: a conceptual critique of shareholder ideology, *Economy and Society*, 31(3), 391-413
- Engelen, E. 2003. The logic of funding European pension restructuring and the dangers of financialisation, *Environment and Planning A*, 35(8), 1357-72
- Engelen, E. 2015. *Financialization sucks: How the academic community of the University of Amsterdam has taken up the fight against neoliberal managerialism*, AntipodeFoundation.org (available at: <https://antipodefoundation.org/2015/03/11/financialization-sucks/>, accessed 15 August 2017)
- Engelen, E., Fernandez, R. and R. Hendrikse. 2014. How finance penetrates its other: A cautionary tale on the financialization of a Dutch university, *Antipode*, 46(4), 1072-91
- Epstein, G. 2001. *Financialization, rentier interests, and central bank policy*, Amherst: University of Massachusetts
- Epstein, G. (Ed) 2005. *Financialization and the world economy*. Cheltenham, UK; Northampton, MA: Edward Elgar, pp. 3-16
- Epstein, G. and A. Jayadev. 2005. "The rise of rentier incomes in OECD countries: Financialization, central bank policy and labor solidarity". Epstein, G. (Ed): *Financialization and the world economy*, Cheltenham: Edward Elgar, pp. 46-74
- Epstein, G. and E. Yeldan, 2008. Inflation targeting, employment creation and economic development: Assessing the impacts and policy alternatives, *International Review of Applied Economics*, 22(2), 131-44
- European Commission. 2000. The future evolution of social protection from a long-term point of view: Safe and sustainable pensions. *Communication to the European Parliament and to the Economic and Social Committee*, [COM(2000) 622 final. available at: <http://eurlex.europa.eu/legalcontent/EN/TXT/HTML/?uri=URISERV:c10125&from=EN>, accessed 10 July 2017]
- Fastenrath, F., Schwan, M. and C. Trampusch. 2017. Where states and markets meet: the financialisation of sovereign debt management, *New Political Economy*, 22(3), 273-93
- Fine, B. 2009. *Financialisation and social policy*, paper presented at the UNRISD conference on the "Social and Political Dimensions of the Global Crisis: Implications for Developing Countries" 12-13 November 2009, Geneva
- Fine, B. 2010. Neo-liberalism as financialisation. Saad-Filho, A. and G. Yalman (Eds), *Transitions to neoliberalism in middle-income countries: Policy dilemmas, economic crises, mass resistance*, London: Routledge, pp. 11-23

- French, S., Leyshon, A. and T. Wainwright. 2011. Financialization space, spacing financialization, *Progress in Human Geography*, 35(6), 798-819.
- Gabor, D. 2010a. (De)Financialisation and crisis in Eastern Europe, *Competition and Change*, 14(3-4), 248-70
- Gabor, D. 2010b. *Central banking and financialization. A Romanian account of how Eastern Europe became sub-prime*, London: Palgrave Macmillan
- Gabor, D. and C. Ban. 2016. Banking on bonds: the new links between states and markets, *JCMS: Journal of Common Market Studies*, 54(3), 617-35
- Gorton, G. 2009. Information, liquidity, and the (ongoing) panic of 2007. *American Economic Review, Papers and Proceedings*, 99(2), 567-72
- Gorton, G. and A. Metrick. 2012. Securitized banking and the run on repo. *Journal of Financial Economics*, 104(3), 425-51.
- Gowan, P. 1999. *The global gamble: Washington's Faustian bid for world dominance*, London: Verso
- Guironnet., A and L. Halbert. 2014. 'The financialization of Urban Development Projects: Concepts, processes, and implications', LATTTS Working Paper 4
- Grahl, J. 2011. The subordination of European finance. *Competition and Change*, 15 (1), 31-47
- Greenspan, A. 2005. *Remarks by chairman Allan Greenspan – Consumer Finance*, FED's Fourth Annual Community Affairs Research Conference, 8 April
- Hardie, I. 2011. How much can governments borrow? Financialization and emerging markets government borrowing capacity, *Review of International Political Economy*, 18:2, 141-67
- Hardie, I., Howarth, D., Maxfield, S. and A. Verdun. 2013. Banks and the false dichotomy in the comparative political economy of finance. *World Politics*, 65(4), 691-728.
- Hager, S.B. 2014. What happened to the bondholding class? Public debt, power and the top one per cent. *New Political Economy*, 19(2), 155-82
- Heintz, J. and R. Balakrishnan. 2012. Debt, power, and crisis: social stratification and the inequitable governance of financial markets. *American Quarterly*, 64(3), 387-409
- Helleiner, E. 2009. The geopolitics of sovereign wealth funds: An introduction. *Geopolitics*, 14(2), 300-304
- Hendrikse, R. P. 2015. *The long arm of finance: Exploring the unlikely financialization of governments and public institutions*, Amsterdam: University of Amsterdam
- Herr, H. 1992. *Geld, Währungswettbewerb und Währungssysteme: Theoretische und historische Analyse der internationalen Geldwirtschaft*. Frankfurt: Campus Verlag
- Herr, H. and K. Hübner. 2005. *Währung und Unsicherheit in der globalen Ökonomie: Eine geldwirtschaftliche Theorie der Globalisierung*. Berlin: Edition Sigma
- Hildyard, D. 2012. *More than bricks and mortar, infrastructure-as-asset-class: Financing development or developing finance? A critical look at private equity infrastructure funds*. Sturminster Newton: The Corner House
- Hördahl, P. and M. King 2008. Developments in repo markets during the financial turmoil. *BIS Quarterly*, December.



- Hudson, M. 2010. The transition from industrial capitalism to a financialized bubble economy, *Levy Economics Institute Working Paper* No. 627, Annandale-on-Hudson, NY: Levy Economics Institute
- Hübner, M. 2016. *Securitisation to the rescue: the European capital markets union project, the euro crisis and the ECB as 'Macroeconomic Stabilizer of Last Resort'*, FEPS Studies, Brussels: Foundation for Progressive Studies (FEPS)
- IMF. 2015. Monetary policy and financial stability, *Staff Report*, Washington D.C.: International Monetary Fund.
- Isaacs, G. 2014. *The myth of 'neutrality' and the rhetoric of 'stability': Macroeconomic policy in democratic South Africa*. Johannesburg: PERSA (Political Economy of Restructuring in South Africa)
- Inderst, G. 2010. Infrastructure as an asset class, *EIB Public and Private Financing of Infrastructure*, *EIB Papers*, 15(1): 70-104
- Kaltenbrunner, A. 2015. A Post Keynesian framework of exchange rate determination: a minskyan approach. *Journal of Post Keynesian Economics*, 38(3), 426-48
- Kaltenbrunner, A. and J.P. Paineira. 2017. Subordinated financial integration and financialisation in emerging capitalist economies: The Brazilian experience. *New Political Economy*, <https://doi.org/10.1080/13563467.2017.1349089>
- Kaltenbrunner, A. and Paineira, J.P. 2017. The impossible trinity: Inflation targeting, exchange rate management and open capital accounts in emerging economies, *Development and Change*, 48(3), 452-80
- Karwowski, E., Mimoza S., and E. Stockhammer, 2016. *Financialization: Dimensions and Determinants. A Cross-Country Study*, PKSG Working Paper 1612
- Karwowski, E. and Stockhammer, E. 2017. Financialisation in emerging economies: a systematic overview and comparison with Anglo-Saxon economies. *Economic and Political Studies*, 5(1), 60-86
- Klein, J. 2003. *For all these Rights: Business, Labor, and the Shaping of America's Public/Private Welfare State*, Princeton, NJ: Princeton University Press
- Knafo, S. 2009. Liberalization and the political economy of financial bubbles. *Competition & Change*, 13(2), 128-44
- Krippner, G.R. 2011. *Capitalizing on crisis*, Cambridge, MA: Harvard University Press
- Kus, B. 2012. Financialisation and income inequality in OECD nations: 1995-2007. *The Economic and Social Review*, 43(4), 477-95
- Lagna, A. 2015. Italian municipalities and the politics of financial derivatives: Rethinking the Foucauldian perspective? *Competition & Change*, 19(4), 283-300
- Lagna, A. 2016. Derivatives and the financialisation of the Italian state, *New Political Economy*, 21(2), 167-86
- Langley, P. 2002. *World financial orders: An historical international political economy*. London and New York: Routledge
- Lapavitsas, C. 2009. *Financialisation embroils developing countries* (Research on Money and Finance No. 14). London: SOAS
- Lapavitsas, C. 2013. *Profiting without producing: how finance exploits us all*. London and New York: Verso
- Lapavitsas, C. and Powell, J. 2013. Financialisation varied: a comparative analysis of advanced economies, *Cambridge Journal of Regions, Economy and Society*, 6(3), 359-79

- Lazonick, W. and M. O'Sullivan, 2000. Maximizing shareholder value: a new ideology for corporate governance, *Economy and Society*, 29(1), 13-35
- Leimgruber, M. 2008. *Solidarity without the State? Business and the Shaping of the Swiss Welfare State, 1890–2000*, Cambridge: Cambridge University Press
- Lis, P. 2015. *Financialisation of the water sector in Poland*, FESSUD Working Paper no. 101
- Livne, R. and Y.P. Yonay, 2015. Performing neoliberal governmentality: an ethnography of financialized sovereign debt management practices. *Socio-Economic Review*, 14(2), 339-62
- Lo, D. 2016. China: Economic turbulence [London: Tariqaliv.com]
- Loftus, A., March, H. and F. Nash, 2016. Water infrastructure and the making of financial subjects in the south east of England, *Water Alternatives*, 9(2), 319-35
- Long, M. 1991. Financial Systems and Development. Callier, P. (Ed) *Financial Systems and Development in Africa*, 159-72, Washington: World Bank
- Luo, Y. 2017. The monetary root of financialisation, *Economic and Political Studies*, 5(1), 41-59
- March, H. and T. Purcell, 2014. The muddy waters of financialisation and new accumulation strategies in the global water industry: The case of AGBAR, *Geoforum*, 53, 11-20
- McCarthy, M.A. 2014. Turning labor into capital: Pension funds and the corporate control of finance, *Politics & Society*, 42(4), 455-87
- McClanahan, A. 2011a. The living indebted: Student militancy and the financialization of debt, *Qui Parle: Critical Humanities and Social Sciences*, 20(1), 57-77
- McClanahan, A. 2011b. Coming due: Accounting for debt, counting on crisis, *South Atlantic Quarterly*, 110(2), 539-45
- McKinley, T. and E. Karwowski, 2015. *Examining the link between macroeconomic policies and productive employment: assessing outcomes for 145 developing countries*, CDPR Working Paper 31/15.
- Mendoza, J.E. 2016. Financialization and the road sector in Mexico. *Problemas del Desarrollo*, 48(189), 85-112
- Meyer, T. and P. Bridgen, 2012. Business, regulation and welfare politics in liberal capitalism, *Policy & Politics*, 40(3), 387-403
- Michell, J. and J. Toporowski, 2014. Critical observations on financialization and the financial process, *International Journal of Political Economy*, 42(2), 67-82
- Mulligan, J. 2016. Insurance accounts: The cultural logics of health care financing, *Medical Anthropology Quarterly*, 30(1), 37-61
- Naczyk, M. 2013. Agents of privatization? Business groups and the rise of pension funds in Continental Europe, *Socio-Economic Review*, 11(3), 441-469
- Newman, S. 2015. Financialisation and the financial and economic crisis: The case of South Africa, *FESSUD Studies in Financial Systems*, 26, Financialisation, Economy, Society and Sustainable Development
- O'Neill, P. 2013. The financialisation of infrastructure: the role of categorisation and property relations, *Cambridge Journal of Regions, Economy and Society*, 6(3), 441-454

- O'Brien, P. and Pike, A. 2015a. *The financialisation and governance of infrastructure*, iBUILD Working Paper 8
- O'Brien, P. and Pike, A. 2015b. The governance of local infrastructure funding and financing. *Infrastructure Complexity*, 2:3, 1-9
- Ocampo, J.A. 2007. The instability and inequities of the global reserve system, *DESA Working Paper No. 59*
- ODG. 2015. *Financialization of infrastructure: Losing sovereignty on energy and economy*, Barcelona: Observatori del Deute en la Globalitzacio
- OECD. 1995. *Social Policy Studies: 16. The Transition from Work to Retirement*, Paris: Organisation for Economic Co-operation and Development
- OECD. 1996. *Social Policy Studies: 20. Ageing in OECD Countries. A Critical Policy Challenge*, Paris: Organisation for Economic Co-operation and Development
- OECD. 1998. *Maintaining Prosperity in an Ageing Society*, Paris: Organisation for Economic Co-operation and Development
- OECD. 2009. *Managing water for all: An OECD perspective on pricing and financing*. Paris: Organisation for Economic Co-operation and Development
- OECD. 2014. *Private Financing and Governmental support to promote long-term investments in infrastructure*. Paris: Organisation for Economic Co-operation and Development
- Orléan, A. 1999. *Le pouvoir de la finance*, Paris: Odile Jacob
- Marin, P. 2009. *Public-private partnerships for urban water utilities: A review of experiences in developing countries*. Public Private Infrastructure Advisory Facility, Trends and Policy Options No. 8. Washington, DC: IBRD
- Olawoye, O. 2016. *Commodity based sovereign wealth funds: An Alternative path to economic development*, PhD dissertation, Kansas City: UMKC.
- Orhangazi, Ö. 2008. Financialisation and capital accumulation in the non-financial corporate sector: A theoretical and empirical investigation on the US economy: 1973-2003. *Cambridge Journal of Economics*, 32(6), 863-86.
- Orhangazi, Ö. 2014. Financial Deregulation and the 2007–08 US Financial Crisis. The Demise of Finance-dominated Capitalism: Explaining the Financial and Economic Crises.
- Pacewicz, J. 2012. Tax increment financing, economic development professionals and the financialization of urban politics, *Socio-Economic Review*, 11(3), 413-40
- Painceira, J.P. 2009. *Developing countries in the era of financialisation: From deficit accumulation to reserve accumulation*. Discussion Paper 4. Research on Money and Finance
- Peck, J. and H. Whiteside, 2016. Financializing Detroit, *Economic Geography*, 92(3), 235-268
- Piga, G. 2001. *Derivatives and public debt management*, New York: International Securities Market Association
- Plihon, D. 1996. Déséquilibres mondiaux et instabilité financière: la responsabilité des politiques libérales, Chesnais, F. (Ed): *La mondialisation financière: Genèse, coût et enjeux*, Paris: Syros.
- Powell, J. 2013. *Subordinate financialisation: A study of Mexico and its non-financial corporations*. PhD thesis, London: SOAS.

- Preunkert, J. 2017. Financialization of government debt? European government debt management approaches 1980–2007, *Competition & Change*, 21(1), 27-44
- Rethel, L. 2010. Financialisation and the Malaysian Political Economy. *Globalizations*, 7(4), 489-506
- Rossi, J. L. 2011. Hedge or speculation? Evidence of the use of derivatives by Brazilian firms during the financial crisis. *ISPER Working Paper*, 243, Instituto de Ensino e Pesquisa.
- Russel, D., Sloan, C. and A. Smith, 2016. *The Financialization of higher education. What swaps cost our schools and students*, New York: The Roosevelt Institute
- Seddon, J. and L. Currie, 2017. Healthcare financialisation and the digital divide in the European Union: Narrative and numbers, *Information & Management*, 54(8), 1084-96
- Shaik, A. 2016. *Capitalism: Competition, conflict, crises*, Oxford and New York: Oxford University Press
- Sovereign Wealth Funds Institute 2012. *Sovereign Wealth Funds Asset Allocation Report*, Las Vegas: SWFI
- Stockhammer, E. 2004. Financialisation and the slowdown of accumulation. *Cambridge Journal of Economics*, 28(5), 719-41
- Stockhammer, E. 2013. Financialization, income distribution and the crisis. *Investigación Económica*, LXXI(279), 39-70
- Stockhammer, E. and O. Onaran, 2013. Wage-led Growth: Theory, Evidence, Policy. *Review of Keynesian Economics*, 1(1), 61-78
- Streeck, W. (2013) *Gekaufte Zeit*, Berlin: Suhrkamp
- Streeck, W. 2014. The politics of public debt: Neoliberalism, capitalist development and the restructuring of the state, *German Economic Review*, 15(1), 143-165
- Strickland, T. 2013. The financialisation of urban development: Tax Increment Financing in Newcastle upon Tyne, *Local Economy*, 28(4), 384-98
- Teles, N. 2015. *Financialisation and neoliberalism: The case of water provision in Portugal*, FESSUD Working Paper Series No. 102
- Tickell, A. 1998. Creative finance and the local state: The Hammersmith and Fulham swaps affair, *Political Geography*, 17(7), 865-81
- Toporowski, J. 2000. *The End of Finance: capital market inflation, financial derivatives and pension fund capitalism*, London, Routledge
- Torrance, M. 2009. Reconceptualising urban governance through a new paradigm for urban infrastructure networks, *Journal of Economic Geography*, 9(6), 805-82
- Trampusch, C. 2015. The Financialisation of Sovereign Debt: An Institutional Analysis of the Reforms in German Public Debt Management, *German Politics*, 24(2), 119-36
- Tyson, J. and T. McKinley, 2014. *Financialization and the developing world: Mapping the issues*, FESSUD Working Paper Series No. 38
- van der Zwan, N. 2014. Making sense of financialisation, *Socio-Economic Review*, 12(1), 99-129
- van Treeck, T. 2009. The political economy debate on ‘financialization’ – a macroeconomic perspective, *Review of International Political Economy*, 16(5), 907-44

- Vural, I. 2017. Financialisation in health care: An analysis of private equity fund investments in Turkey, *Social Science & Medicine*, 187, 276-86
- Wainwright, T. and G. Manville. 2017. Financialization and the third sector: Innovation in social housing bond markets. *Environment and Planning A: Economy and Space*, 49(4), 819-838
- Wang, Y. 2015. The rise of the 'shareholding state': financialization of economic management in China, *Socio-Economic Review*, 13(3), 603-25
- Weber, R. 2010. Selling city futures: the financialization of urban redevelopment policy, *Economic Geography*, 86(3), 251-74
- Weiss, H. 2015. Financialization and its discontents: Israelis negotiating pensions, *American Anthropologist*, 117(3), 506-18
- Whelan, K. 2014. *The ECB's collateral policy and its future as lender of last resort*. Report for the European Parliament.
- World Bank. 1989. *World Development Report 1989*. Washington, D. C.: World Bank
- Peck, J. and H. Whiteside, 2016. Financializing Detroit, *Economic Geography*, 92(3), 235-68
- Vernango, M. 2007. Fiscal squeeze and social policy during the Cardoso administration (1995-2002). *Latin American Perspectives*, 156(34), 81-91.
- Whitfield, D. 2012. PPP wealth machine: UK and global trends in trading project ownership, *European Services Strategy Unit Research Report*, No. 6
- Witko, C. 2016. The Politics of Financialization in the United States, 1949–2005, *British Journal of Political Science*, 46(2), 349-70
- World Bank. 1994. *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth' Policy Research Report*, Oxford: Oxford University Press
- World Rainforest Movement 2014. Accelerated deforestation: Financialization as driver of infrastructure projects [available at: <http://wrm.org.uy/articles-from-the-wrm-bulletin/section1/accelerating-deforestation-financialization-as-a-driver-of-infrastructure-projects/>, accessed 1 July 2017]
- Wray, L.R. 2009. *Healthcare Diversions Part 3: The financialization of health and everything else in the universe*, New Economic Perspectives [available at: <http://neweconomicperspectives.org/2009/10/healthcare-diversions-part-3.html#print>, accessed 15 August 2017]
- Zhang, L. and D. Bezemer, 2014. *How the Credit Cycle Affects Growth: The Role of Bank Balance Sheets*. University of Groningen Working Paper 14025-GEM