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Public deficits and private debts: problematising the fee-loan regime (2012) in making a market for higher education in England

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Thesis submitted for the degree of Doctor of Philosophy in the Department of European and International Studies, King's College London, University of London

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Abstract

The political goal to decrease public expenditure by way of private debt and its distribution through markets is a central characteristic of austerity governance in Anglo-America. But in England, a similar, but less heralded government backed debt solution, had been introduced as part of the marketisation reforms within the Higher Education (HE) sector. The Income-Contingent Repayment (ICR) loan is a complex funding solution implemented to shield student borrowers from risk of default by shifting non repayment onto the taxpayer. While responsible for entangling students, universities, and the taxpayer in market relations its effects remain poorly understood. This is the object of this thesis: it focuses on the implementation of the ICR loans around which a market-based solution had been organised. The analysis studies the application of expert knowledge established as part of market formation processes, foregrounding the calculative practices that had become central to measuring the efficacy of the market. It places emphasis on the particular forms the HE market takes as the moral, power, and temporal dynamics that constitute debt obligations. At the centre of this thesis is Michel Callon's concept of problematisation which follows the ways actors define problems with obligatory courses of action required to achieve resolution. It is applied alongside literature in the social studies of markets to explain how the state governs non-market areas, such as HE to achieve predefined goals. As well as providing a means to engage with the entangling of participants into market relations and the distribution of obligations. Studying the ICR loans from a governance perspective challenges key assumptions about debt in Marxist or Foucauldian inspired literature that signifies indebtedness as readily applied to explain the exploitation of debtors by market forces in absence of the state. In so doing, the thesis argues that participants are entangled into particular market relations around the obligations of student loan debt. It is these obligations, that are integral to what is evaluated as problematic and comes to require repair in the HE market. In particular, the thesis draws attention to the ways market problems are articulated, evaluated and resolved, and the actors that come to be entangled with these solutions. In doing so the thesis contributes towards political and cultural economy studies of debt in terms of the heuristic evaluation of indebtedness, by developing the social studies of markets conceptual framework to evaluate student loans as methodologically connected to market and market making processes.

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List of abbreviations

ANT Actor-Network Theory

BIS Department for Business, Innovation and Skills

ICR Loans Income-Contingent Repayment Loans

IFS Institute for Fiscal Studies

HE Higher Education

Hefce Higher Education Funding Council for England

HESA Higher Education Statistics Agency

HMRC Her Majesty's Revenue and Customs

NPV Net Present Value

Office for Fair Access

OfS Office for Students

ONS Office for National Statistics

RAB charge Resource Accounting and Budgeting charge

SLC Student Loans Company

STS Science and Technology Studies

UUK Universities UK

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Introduction

The implementation of loans as a solution to replace publicly subsidised goods and their distribution through markets, began in Anglo-America in the 1970s. From financing homeowner loans to the US student debt crisis. The growing relevance of loans has often translated to exuberant amounts of unrepayable debt, revealing the role of the state as a liable actor. In England, a similar narrative of debt-based solutions can be located as part of the marketisation of Higher Education (HE), central to policy initiatives aiming to reduce public expenditure. However, a crucial, less heralded component to public policy are the Income-Contingent Repayment (ICR) loans, responsible for insurmountable public and private debt levels which continue to rise. It is this poorly understood, unique funding solution, but central to the HE market that is the object of this thesis.

This thesis traces the implementation of the ICR loans, as part of the controversial reforms in 2010 that saw the complete removal of government funding and their replacement with loans. The ICR loans are unique because the obligation to repay is contingent on labour market outcomes, removing risk of default from student borrowers. However, non-repayment is shifted onto the taxpayer, resulting in a costly funding solution for the HE market. The ways in which the loans have entangled students, universities and the taxpayer, in market relations has not received sufficient engagement. This thesis engages with the loans from a governance perspective, by bringing into view different policymakers that have taken part in organising the HE market. In so doing, it seeks to show how the obligations of student loan debt comes to shape the particular arrangement of the HE market, mainly because failure to uphold these prompts the government to produce favourable market conditions for repayment.

Throughout this thesis an important emphasis is placed on the particular forms the HE market takes as the moral, power, and temporal dynamics that constitute debt obligations. Studying a government funding solution such as the ICR loans requires engaging with the particular obligations the loans distribute between taxpayers and students organised into specific market relations. This thesis draws on literature within economic sociology, broadly termed 'the social studies of markets' (Callon, 1998a; Frankel, Ossandón, & Pallesen, 2019; Jenle & Pallesen, 2017; Neyland, Ehrenstein, & Milyaeva, 2019b) as a conceptual orientation to explain how the state governs non-market areas, such as HE to achieve predefined goals.

Primarily it understands markets as policy instruments, bringing to the fore expertise to highlight the technical knowledge mobilised to evaluate and repair markets, giving shape to the particular arrangement constructed. Further, it provides a means to engage with the entangling of participants into market relations and the distribution of responsibilities, or obligations that market devices are involved in. For this study, the social studies of markets literature allows tracing how market relations have come to be organised around student loan debt, paying special attention to how market mechanisms are offered as the best solution to collective problems.

Therefore, the role of student debt in HE market making in England is analysed through the conceptual prism of 'problematisation' following Callon (1980, 1984), which denotes an analytical stance that follows the process in which actors establish what comes to be defined as a problem. Evaluating markets using problematisation involves deploying an obligatory path or an infrastructure by use of devices, with goals and aims towards its resolution. Employing this concept has been useful to understand the mode of governing present. Within the social studies of market literature, problematisation is adapted to highlight the process in which market arrangements are evaluated against ideal market forms, deemed the best solution to solve collective problems, with policymaking oriented towards the repair of the market (Ossandón & Ureta, 2019). Applying this lens reveals which social problems come to count as problematic, and the politics underlying specific market arrangements that are imposed with the aim of achieving state defined goals.

Moreover, viewing student loan debt through problematisation challenges key assumptions about debt in the current literature. In particular, Marxist or Foucauldian inspired studies of debt position indebtedness explicitly as part of state market relations (Joseph, 2014; Langley, 2009; Lazzarato, 2009, 2012; Roberts & Soederberg, 2014; Soederberg, 2013, 2014b). From a Marxist perspective, debt is a general constituting relation. It signifies indebtedness can be readily applied to explain the exploitation of debtors by market forces in absence of the state. Private loans, like the ICR loans are state-backed debt. When discussed from a Marxist perspective, there is an assumption that the disciplining state produces indebted subjects by subjecting them to exploitative actors in unregulated markets. However, the particular state market relations that come to define the organisation of the market around student loan debt does not easily fit within this account.

The ICR loans have been specifically devised to address the problematisation of public spending on HE, part of a wider move to reduce the public sector deficit. As such, the particular solution to funding the HE market the ICR loans constitute, in which students and taxpayers are tied through the obligation to repay has a complexity that cannot be reduced to a state in retreat narrative. The central argument of this thesis is that participants are entangled into particular market relations around the obligations of student loan debt. It is these obligations, that are integral to what is evaluated as problematic and comes to require repair in the HE market.

The starting point is placing student loans as an object of study within political and cultural economy literature, to examine the ways debtors become organised around debt obligations. However, I am also attentive to the novelty of the ICR loans themselves, which constitute different obligations to that of a traditional loan contract. The ICR loans form a unique obligation as part of HE market relations that cannot be studied with Marxist and Foucauldian-tinged literature who too strongly rely on debt as a general, constitutive relation that is reproduced as part of the state and market relations. Instead, I place the ICR loans as part of market making processes at the centre of the analysis. Drawing on economic sociology literature, specifically, the social studies of markets, I am able to reveal the aims with which market mechanisms have been applied towards resolving set government goals (Frankel, 2015; Mirowski, 2013; Nik-Khah & Mirowski, 2019). Doing so pays heed to the market concept at hand and the forms of governance that are at play. This is relevant because it allows to isolate the ways market problems are articulated, evaluated and resolved, and the actors that come to be entangled with these solutions.

Studying indebtedness as a market relation

Broadly speaking, student loan schemes involve government backed-loans administered by private finance companies to access university, which can vary in terms of government support. In the UK and the US, student loans, whilst differing across countries in operational and design features, often carry the same results – rising debt levels. Outstanding student debt became a signal of a wager in which young adults are required to take on significant, and often unpayable amounts of debt as a means for accessing HE (Zaloom, 2018). Yet what is crucial to note when studying government-backed, or ICR type loans, are the politics that have formed because such loans are administered and provided by the state. That student

loans are a state adopted solution, is controversial because of the moral and power relations that are formed through indebtedness, often normalised through economic logics (Zaloom, 2018).

In engaging with student loans as part of HE market reforms, there is a need to consider the ways in which market relations have become organised around the ICR loans, positioned as a basis for distributing public resources. Of interest here, are the state, market, and debt relations that are part of this unfolding narrative of student loan indebtedness. To address this object, the thesis locates itself in relation to a body of work across a number of disciplines, including cultural and political economy, economic sociology and science and technology studies (STS). The following will draw out the main themes that are relevant for the study of student loan indebtedness, as well as the points of contestation that may arise from this rendering of the literature.

At its simplest, contractual debt (that is debt geared towards repayment) forms relations between conjoining parties that are upheld by schedules of repayment. The nature of such relations can be understood more broadly as an obligation – a promise to pay (Guyer, 2012). The contractual basis for exchange that ties the debtor and creditor together, signifies an obligation that has been made, where failure to uphold such obligations often carries consequences (Peebles, 2010, p. 227). However, the particular obligations of the ICR loans do not easily translate into failure to repay narratives because non-repayment is a central condition. While there is expansive literature that studies the obligations of debt, in this thesis I am particularly interested with how public and private debt-based solutions imposed by the state, entangle debtors in distinct obligations that come to shape market relations.

Within literature that takes the promise to pay as constitutive of time, there has been some contestation over the temporal relations such obligations bind the subject to. For Lazzarato (2012), the creditor-debtor relation is an architype of social relations, encapsulating the whole of society within it. From this position, 'debt society', signifies private turned public debt, as well as mass debt that more broadly ties subjects to a universal promise to pay. The asymmetrical power and political relations result in an eternal reproduction of debt based relations, namely the 'indebted man' (Lazzarato, 2012, p. 9). It is a closing down of time that manifests Lazzarato's thesis in which subject in debt and thereby society does not exist

beyond indebted time, one that is created in relation to a known and inescapable future — that of debt. While Lazzarato's presentation of debt is significant as it explains how society is temporally tied to private forms of debt, through the promise to pay. In taking debt as a central constitutive relation, it does not offer this thesis an approach to the particular logic and operation of debt to study the ICR loans.

It is an approach that has been found in the work of Lisa Adkins. In starting with the obligation to repay, Adkins (2008, 2017) presents a contrasting relation to explain the intersection of temporalities with the indebted subject. It is by pointing to contemporary forms of debt, which take a different temporal character composed of payments of debt service rather than geared towards an end point of acquittal, that a 'subject' in debt is revealed. Noting the particular operations of debt, namely the type of loan, its terms, and repayment becomes significant because they form a central part of what ties the subject to the time of debt. Repayment schedules are determined against calculative practices which involve a particular, ideal or preferred subject, one that can adhere to the temporal obligations of debt. As pointed to above, Adkins' approach is of significance here because in pointing to the calculative practices of debt, it is able to explain the implications of imposing a government backed ICR loan. I suggest this despite non-repayment constituting a central loan term, around which justifications to implement student loans are often made (Chapman, 2016; Hillman, 2013).

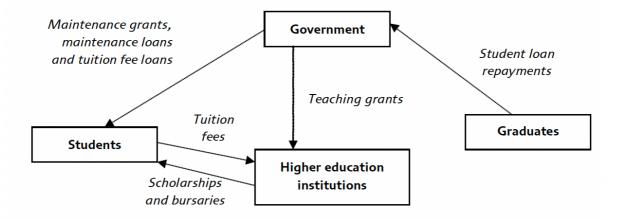
Making a market for higher education in England - The empirical terrain of the ICR loans

The empirical focus here is on the Income-Contingent Repayment (ICR) loan, a form of government backed loan implemented in 2012 as part of a package of reforms that included the tripling of tuition fees within the HE sector in England. To note, this thesis solely studies the English HE sector because of a devolution of policy that resulted in a differentiation in funding bodies and financing (Trench, 2008). While the use of loans to fund HE is certainly not new. In fact, loans had been implemented to cover the costs of upfront tuition fees introduced in 1998 by the Labour government (Hillman, 2013), with various types of loan-fee arrangement had been in place since then. The current ICR loans forms the extensive system there is today.

Therefore, the ICR loans and tripling of tuition fees temporally delineates this case. The first chart, figure 1, gives an insight into the finance infrastructure that had been implemented

following the 2012 reforms. It provides an account of the movement of money within the HE sector in England, as it transfers between the government, universities and students, first as fees then repayments.

Figure 1. The 2012 HE finance and student support system



Note: Universities also receive grants from the government to fund research and other activities, including work to widen participation.

Source: Institute for Fiscal Studies (2014)

This thesis traces how the infrastructure of debt comes to define market relations. The contractual terms of the loans include repayment terms, interest rates and debt forgiveness, all central parts to setting obligations that give particular shape to market relations. What makes this a unique approach, is that the ICR loans are treated as inseparable to the political, economic and normative rationale for their implementation, that come to permeate the market. Doing so demonstrates how political problems the loans had been set up to resolve are defined in terms of market outcomes and thereby governed through the market. In this respect, it is not the market, but the ICR loans which constitute the governance of HE. What is novel about this conceptual framework is that it recognises the unprecedented nature of the ICR loans as part of English marketisation of HE, in connection to the social studies of markets.

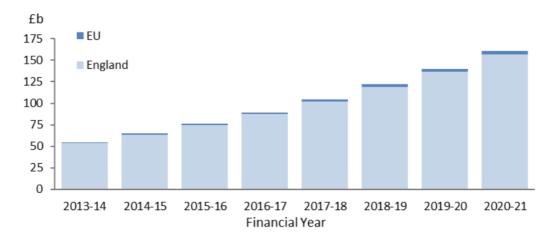
In brief, ICR type loans are as their name suggests income contingent, a sum of money lent to a prospective student to cover tuition fee costs, with repayment tied to labour market outcomes. In England, the rationale for implementing loans had been historically part of a shifting political and ideological argument within government, which both recognised the need for growth in student numbers and sought to shift the financial onus to students, justified as its direct beneficiaries (Hillman, 2013; McGettigan, 2013). Yet the centrality of the 2010 reforms, can be more accurately connected to the austerity measures prevailing at the time. Namely, a political goal to decrease public expenditure, with the loans, alongside market mechanisms utilised as means for achieving that aim. The result, a shared funding scheme that consolidates, students-as-graduates and taxpayers as separate debtors that share the burden of HE. With interest rates and repayment thresholds forming an essential part of the government's policy goals for public expenditure. Critically, replacing the majority of the government's £5 billion teaching grant ('block grant') with a loan-based solution has mainly resulted in unrepayable amounts of debt.

One way to observe this trend is in levels of borrowing. As figure 2 shows, the outstanding loan 'balance' or the amount of income-contingent debt owed by students for both England and EU borrowers has reached £160.6 billion by the end of 2021, increased by 14.6% or roughly £20.5 billion each year from the time of implementation in 2012, until today. What is crucial here to note is that the loan balance has increased as a result of new lending as well as interest added to existing balances, which has outweighed repayments and write-offs. I mention the increasing loan balance because it highlights the complex obligations the ICR loans form between the state and students, allowing to question the degree to which at their inception, the structure of the ICR loans denotes them mostly impossible to repay. It is not only students that must repay these loans at retail-price index linked rates of interest that is troubling, indeed, any non-repayment is thus shifted to the taxpayer, as part of the loan terms.

Figure 2. The ICR loan balance for both England and EU HE borrowers, 2013 – 2021, by year

Example 2 Income Contingent Student Loan balance reaches **£160.6** billion for Higher Education borrowers

Figure 1: Total Balance of Income Contingent Student Loans at the end of Financial Year 2013-14 to 2020-21: Higher Education (£ billion)



Source: Student Loans Company (2021)

The makeup of the ICR loans is shaped by a particular politics that cannot be captured by attending to the loan terms alone. Crucially, these relations are part of market activity, formed as a result of imposing the ICR loans as a funding solution to be distributed by way of market. Imposing the ICR loans signifies that it had been anticipated that the market would provide the best means for achieving the obligations that debt forms – namely repayment. That is why it becomes especially important to explore the ways the market has been organised around student loans.

Theoretical framework

As outlined above, the starting point is student loan *indebtedness* as a result of the centrality of the ICR loans to this thesis. With indebtedness I am specifically concerned with how non-repayment, that is public and private student loan debt, is implicated in moral, power, and temporal relations that are otherwise not easily visible.

The theoretical framework developed places the thesis within the social studies of markets literature with the aim of drawing out the most suitable approach for studying student loan

debt within the HE market. This is complemented with existing literature within political and cultural economy studies of debt.

The first element of this framework is evaluating debt as a market device that creates particular entanglements. Taking seriously the particular form of obligation the ICR loans form, means recognising the wider market infrastructure beyond the contractual or power relations of a credit contract. Doing so requires taking a wider view that encapsulates the logic and justification of policies for establishing the ICR loans as a viable solution to the problems posed by austerity politics. While debt can be defined as a contractual obligation that is set by schedules of repayment, debt also forms a distinct moral obligation (Guyer, 2012). Emphasis here is often placed on the disciplining role of debt, in which responsibility is shifted through economic calculation, into the everyday life of the subject (Lazzarato, 2012). In contrast, for scholars such as Caitlin Zaloom the moral obligations of financial tools such as the ICR loans, cannot be easily explained as shifting calculative responsibility onto debtors. Instead, a much more intricate process or mechanism is developed. These are not simply trickled down, but go hand in hand with government policies that may for example, mark out the terms for future success or failure, thereby embedding within them definitions for responsible action (Zaloom, 2020). In positioning moral obligations within government policies, reveals the intentionality with which taking and repaying a loan has been clearly mobilised as part of the HE reforms. More broadly however, the framework for tracing the ways government backed loan solutions spread responsibility can be extended to include market relations.

Of interest here, is the diverse treatment of markets more generally, and noting the particularities of different market arrangements. What is most significance here is the unifying assumption that markets require organisation (Callon, 1998b), emphasising either the performative, socio-technical work, or the actors that take part in its organisation. Crucially, what I take away from such literature is noting the different market terms that are mobilised by experts to achieve predefined goals, as well as the 'devices' that are integral to organising participants around specific market forms (Callon & Muniesa, 2005b; Frankel et al., 2019). Taking this approach allows me to consider the very relations that student loan debt entangles participants in, giving particular form to the market arrangement in HE. I am referring to the obligations that form part of the relations of debt.

A central element of the theoretical framework is a particular approach coined 'markets for collective concerns' as its empirical object, signifying markets, or market terms such as competition or price, that have been purposefully introduced as instruments to resolve collective problems (Frankel et al., 2019, p. 2). This approach is of appeal here because it is able to offer an alternative to existing accounts that understand the state and market as separate spheres, and instead emphasises the capacity of the state to 'govern[s] the politics of distribution' (Reverdy & Breslau, 2019, p. 199). In this respect, markets are understood as policy instruments, which necessitate continuous evaluation and repair in the aim of achieving state defined goals. Policymaking becomes a new form of governing, placing analytical emphasis on market designers – or experts - who often emerge alongside controversies that arise from implementing markets as solutions to public problems (Ossandón & Ureta, 2019). Unlike previous HE policy studies of marketisation that question the political ideological motivations that assume market mechanisms can serve public interest (Holmwood, 2011). A study of the HE market through markets for collective concern reveals the aims with which market terms have been specifically mobilised and reworked to achieve political goals.

A further element of the theoretical framework is a strand of literature that sits at the intersection of the social studies of markets and STS, approaches the socio-technical and performative aspects of markets through devices (Callon & Muniesa, 2005a). Put simply, market devices entangle participants in economic relations by creating spaces of calculations in which people, goods and objects are arranged. However, such an approach is of limited use here because it reduces the market to an economic space, which does not capture the diversity of relations devices such as the ICR loans configure. Instead, I draw on Neyland et. al's (2019b) rendition of market devices: accountability devices. This term has been coined in response to 'markets for collective concern', with the aim of accounting for the particular role devices play to bring about a specific configuration of the market. Accountability devices set normative and economic expectations for how market relations are to manifest, giving precise form to collective concerns. They do so by defining responsibility and delimiting obligations, who and what is responsible and accountable for who and what (Neyland et al., 2019b, p. 245). A study of the ICR loans through accountability devices, allows noting how the particular obligations of debt, that is the

moral, temporal and power dynamics that are formed do not sit externally to the market but instead come to prefigure market relations. More broadly, it enables to study debt not as a general constitutive relation, but as a particular market device that configures realities.

Accountability devices are relevant to the study of ICR loans because they are able to point to the 'messiness of outcomes', or problems that may arise when obligations have not been met. Noting the problems that arise, and how they are dealt with is crucial to understanding the mode of governance at play. In tracing the problems that resulted from deploying market mechanisms in the HE sector, draws attention to the evaluative role the ICR loans play in determining the efficacy of the current market arrangement. More importantly, how failure to meet obligations is dealt with through the market rather than by altering loan conditions, or disciplining subjects.

A final element of the theoretical framework draws on Callon's concept of problematisation (Callon, 1980, 1984) to emphasise the transformation of issues into problems, where problems can be defined as a power struggle, a means of imposing a subjective view on the world. This concept has been developed in relation to both the HE market as a market for collective concern to draw out the knowledge experts mobilise to assess and repair markets. Problematisation permits a way of unpacking the ways the ICR loans entangle market participants. Namely, I am interested in whether enforcing indebtedness is often achieved with an ideal subject that must adhere to set terms, or future obligations in order to avoid sanctions (Adkins, 2017).

For this thesis, problematisation is then a useful lens to reveal what constitutes an issue as well as how it has been dealt with. As pointed to above, the implications of replacing the state grant with student loan debt, to be distributed with market mechanisms has resulted in copious amounts of both public and private debt. However, the effects of the ICR loans cannot be summarised simply in terms of a growing, unrepayable amount of debt. In this respect, the issues that may arise from repayment must be understood temporally. I turn to philosophy of science, which sheds light on the intersection between problems, solutions and time. Specifically, Isabell Schrickel's (2020) account draws attention to the temporal infrastructure of problems, signifying an external event that organises societies or subjects towards a set solution, or against the uncertainty of time. Here Schrickel follows Deleuze

(1994) to demonstrate how when used instrumentally, problems are defined against an uncertain future, instigating change in the present as a measure of control.

Contributions to the literature

This thesis contributes to political and cultural economy studies of debt in terms of the heuristic evaluation of indebtedness, by developing the social studies of markets conceptual framework to evaluate student loans as methodologically connected to markets and market making processes.

Primarily, I make this contribution by demonstrating how debt obligations come to define market relations, offering a novel lens to the ways market participants are prefigured by repayment terms. Whilst political and cultural economy studies of debt, specifically Marxist literature (Lazzarato, 2012; Roberts & Soederberg, 2014; Soederberg, 2005, 2014b), has paid attention to the power or moral dynamics that debt forms, they focus on the production of indebted subjects as a result of state interference. This approach largely takes debt as a general constitutive relation that is reproduced in all social relations, thereby always resulting in the exploitation of subjects. By focusing on the ICR loans as a unique form of debt, I will show how the moral and economic terms of repayment have entangled participants in specific market relations, namely choice and competition. As part of the design of the reforms, individual success or failure to choose correctly had been measured on the ability of the graduate to repay back their debt, because failure to repay places greater financial onus on the taxpayer. This point is important because the obligations of debt are not only transferred onto students but form part of market relations, thereby becoming justifications for further market reforms.

Secondly, I further advance the political and cultural economy literature by offering a study of debt through the novel concepts of markets for collective concerns and accountability devices (Frankel et al., 2019; Neyland et al., 2019b). Both these concepts are utilised to surmount the binary opposition that is often found within political economy studies of debt that take the state and market, as two separately operating spheres. Specifically, Foucauldian-inspired studies such as Paul Langley's (2006, 2009). Despite their attention to particular forms of debt, as part of state market relations, such work tends to overlook specific forms of market activity that cannot be explained by disciplining subjects' narratives in unregulated markets. As I will demonstrate, student loans have ushered in modes of

control in the form of new regulatory bodies. The Office for Students (OfS) is one such example that has been conceived to monitor and change both student choices and university competition. As I will argue, to understand the specific features of student loan debt and the consequences it carries for debtors, careful attention has to be paid to the particular forms of market activity and the way that it is governed by the state.

Thirdly, deploying Callon's (1980, 1984) problematisation to the ICR loans and marketisation of HE traces how the UK government's commitment to austerity has been politically reworked into an economic problem that is to be resolved via debt-based solutions. Austerity was a policy goal to reduce the public deficit and national debt. In turn this objective has come to define the terms of the loans and the efficacy of the HE market. In evaluating the repayment rates on the loans, value for money of the current market arrangement had been assessed, in terms of both the taxpayer and students. In this sense, the analysis both confirms and extends recent research into markets for collective concern, analysing the ways debt forms part of the problem solution relationship when implementing markets to resolve collective problems (Frankel et al., 2019). Furthermore, by studying problematisation as part of debt entanglements, the analysis both confirms and extends research into the temporalities of debt (Adkins, 2008, 2017). While part of the problems of the calculative practices of the ICR loans had involved specific subjectivities, namely lower attaining graduates that would accumulate greater debt over their working lives. As I will show, inducing payments today had taken preference by changing the market design in order to mitigate the ability of the market to respond to the growing public deficit. In this respect, the analysis is closer to Jenle and Pallesen's (2017) which points to the governance of consumer conduct as part of the framework of the market. As I will argue, in the HE market, it is not only the conduct of students that is governed but also that of universities.

The final contribution this thesis seeks to make is to further extend the methodological approach within STS-inspired research to study market devices. This thesis studies the making of a market using documents and document analysis as tools for researching market devices. While some may view documents with some disdain (see Latour, 1988), I claim documents, especially as they relate to government market making are an essential source for understanding how market infrastructures form part of governance more generally. Undoubtedly, there is a tendency to treat market devices as research objects

ethnographically (Hébert, 2014), where emphasis is placed on the living, materiality of markets as products of its design (Breslau, 2013). However, the application of documents as tools for research is significant because it focuses on market devices from a different angle. The analysis taken here studies the application of expert knowledge established as part of market formation processes, because it offers a lens into the potential influence of the loans to market evaluations. Not only do I show how the assessment and repair of the market has been achieved in relation to particular economic knowledge, namely calculating repayment rates which had become a form of market expertise. But documents, I claim are also able to reveal the 'messiness of outcomes' or problems that arise as the result of market design. Mainly because the calculative practice of the loans is key to measuring the efficacy of the market.

Outline of thesis

Chapter 1 sets the scene for a study of student loan debt as the basis for addressing the marketisation of English HE. It does so by exploring the key empirical and theoretical assumptions within existing HE policy studies and, political and cultural economy studies of debt. In this respect, I argue that, not much attention has been paid to student loan debt as an empirical object of study, in a way which considers the political, economic relations as integral to processes of marketisation. Literature that studies HE policy research has taken marketisation of HE as its object of analysis, attributed to a dual shift towards private fees alongside a reduction in government funding (Brown & Carasso, 2013; Holmwood, 2011; Molesworth, 2010). Despite framing critique of marketisation in terms of private forms of funding, the underlying assumption that the ICR loans can be compared with private fees seems to be premised on the idea that the market mode of arranging the sector necessitates a move away from public, or rather state forms of funding.

In pointing to the unique relations between the state and the market, I also draw into view wider political economic processes that are part of state and market relations (Montgomerie & Büdenbender, 2015). I argue for a more nuanced approach to understand the particular logic of the market with the relations debt forms, because of the unique funding solution the ICR loans represent which is responsible for both private and public debt. In this respect, the chapter concludes by exploring the conceptual scope of debt obligations as it has been studied, through moral and temporal terms to allow for an

account of subjectivities (Adkins, 2019; Lazzarato, 2012; Zaloom, 2020). As I will go on to argue, the obligations of debt as forming part of market relations has not yet been fully explored.

Chapter 2 sets out the theoretical framework through which student loan debt can be studied as part market making processes. It builds on the themes explored in the first chapter, making a case for placing the object of study within recent accounts of economic sociology: 'the social studies of markets'. The chapter presents the literature and in doing so draws out analytical tools that are applied throughout this thesis. Taking this approach foregrounds *expertise* and *accountability devices as* integral to market organisation, evaluation and repair that is achieved against a predefined 'ideal' market form. Primarily, a focus on expertise enables the thesis to explore how market features, such as choice or competition, have been mobilised and to what ends. It provides this thesis with analytical clarity on what is being studied, by pointing to how market relations become organised around student loan debt. More specifically, this body of work provides a useful lens for understanding state market relations in terms of governance, where markets are implemented to achieve defined goals.

Chapter 3 incorporates both the literature and the theoretical framework into a viable methodological practice for studying student loan debt as part of the HE market. In particular, it presents an approach to study market organisation alongside the sociotechnical relations that debt as a device forms. Namely, by foregrounding problematisation as an analytical orientation to the study, a 'second order' (Pottage, Rabinow, & Bennett, 2014) approach is taken which follows the ways experts problematise a certain issue in the past (see also Callon, 1980; Ossandón & Ureta, 2019). It also draws attention to the ways problems are framed and the possibility that market reforms may not achieve their desired effects. Doing so reveals the points of contestation that may occur when obligations or the normative and economic terms of the reforms have not been met. In so doing it argues for applying document analysis as a method of research, pointing to the capabilities that such a tool affords. Namely, it both makes apparent the consequential actors that had taken part in shaping the HE market and also provides an account of the calculative practice of the loans. This is achieved whilst acknowledging the inevitable partialities of documents, which

nevertheless foregrounds an institutional perspective to market making, expertise and student loan debt in the HE market.

Chapter 4 and 5 present the findings from the document analysis that trace the design and subsequent implementation of the 2010 marketisation reforms. The analysis details the shift in the sector towards a market-based model, and crucially the replacement of state funding with the ICR loans. Chapter 4 explores the political and economic conditions that had precipitated the reforms, applying problematisation as a lens to investigate the politically charged framing of austerity politics around the 2008 financial crash. What is prominent about this is setting the unique terms of the loans, shifting responsibility of funding over to students and the taxpayer, whilst seeking to maintain market expansion. I argue that the loans had become a central accountability device in the design of the market, as they enabled price-based competition and choice to take place in a way that fees alone could not. In this respect, the ICR loans had been purposefully implemented to disperse state funding by way of market relations, giving choice and competition particular meaning. More specifically, the prominent assumption had been that shifting responsibility of funding over to students, would make course choice meaningful, and that universities would respond by offering attractive rates or increasing quality to compete over students. In this respect, the chapter demonstrates the ways debt obligations permeate market relations, drawing attention to the moral relations that come to define success and failure for students by tying the ability to repay, to labour market earnings. I demonstrate how repayment rates became a central measurement for the efficacy of the reforms and their ability to respond to a reduction of public funding.

Chapter 5 moves beyond the planning phase of the reforms and focuses instead on the problems and the solutions offered to remediate the issues that immediately emerged. Specifically, the evaluation and assessment of what had gone wrong as well as attempts to sustain market relations despite failure of the reforms to produce price-based competition and choice. It is in such attempts by the government that the main argument of the chapter is made which claims that student loans have ushered in new modes of control in the form of regulatory bodies.

As the chapter illustrates, key issues that emerged had been framed in terms of the design of the fee-loan regime but instead were evaluated against the ability of the market terms to

produce 'value for money' for the taxpayer. What I find most relevant is that the loans had been geared towards an uncertain future, that placed greater gravity on the calculative practice of the loans as a means for assessing the efficacy of the current market arrangement. As a result, these models had been saturated in assumptions on the future behaviour of students, marking out problematic student subjectivities, namely, lower- and middle- income earners who are less liable to repay back their loans. Critically, these precipitated further reforms and changes to the current market arrangement, setting out the Office for Students (OfS), a new regulatory body that would act on behalf of the government. Specifically, in the process of remediating the possibility of non-repayment, the OfS had been set up to define appropriate market action with the legislative capabilities of intervening if universities do not adhere to the new financial demands. To return to the argument set out above, the chapter demonstrates that student loans precipitated new forms of control, which had been exerted by changing market conditions.

Chapter 6 outlines the discussion of the main findings to mark out the contributions to the literature: expertise, accountability devices and problematisation demonstrate the main analytical tools applied in the analysis. The contributions are presented towards economic sociology, specifically the social studies of market literature, as well as political and cultural economy studies of debt. These are presented in terms of the empirical content, as well as the methodological and theoretical approach. Namely the discussion considers closely, as part of the overall contribution of this thesis, the problematisation of student loan debt as part of market making processes. The organisation of the HE sector into a market arrangement had been constructed to 'govern the politics of distribution' (Reverdy & Breslau, 2019, p. 199), with the ideal market form can be understood in terms of achieving an increase in debt repayment.

In conclusion, the final chapter demonstrates the ways political and economic terms come to manifest market forms, as well as showing how debt obligations form part of market relations. These carry two important consequences because it places gravity on state backed student loans, such as the ICR, which despite their 'progressive' appearance, tie students in problematic political relations. By revealing the ways obligations come to play a central role within market relations, I demonstrate that failure to meet loan terms results in changing market conditions. This is instead of a disciplining of subjects that state imposed

debt is often attributed to. This point is revealed by highlighting the centrality of problematisation to demonstrate how the shift in responsibility that placed the economic obligations onto the taxpayer and students, deeming them liable for the success of the reforms.

Another key intervention is on experts and the role expertise in policymaking. Emphasis here is placed not only on the forms of expertise that had emerged and acted towards achieving the ideal market form, but on the specific public that had been encapsulated within the definition of the problem. Critically, it has shown to carry significance because it precipitated further reforms that not only sought to repair the existing market arrangement, but to change the conduct of market participants.

This is a novel contribution to the political and cultural economy studies of debt by demonstrating how debt obligations come to define market relations. In particular, how forms of market activity are governed by the state as part of debt-based solutions. This is important because it draws much needed attention to the calculative practices of the loans as a means for measuring the efficacy of the market.

Literature review

Distributing public funding: The case of student loan debt

Introduction

This chapter foregrounds student loan debt as the basis for addressing the marketisation of English Higher Education (HE). It focuses on marketisation as a process for efficiently distributing state resources. However, by taking the form of both public and private funding arrangements, student loan debt poses a challenge for accounts that present private fees as a means for explaining the consequences of HE marketisation (Brown & Carasso, 2013; Molesworth, 2010). As will be outlined, HE policy research takes marketisation of HE as its object of analysis, yet does not consider student loans as an empirical object that should be discussed in reference to the HE market. This chapter is therefore a review of literature that has taken private funding arrangements more generally, and debt specifically as a central driver of marketisation, outlining key empirical and theoretical problematics. To make sense of how indebtedness has been studied in relation to the market, I place this discussion within accounts of political and cultural economy studies of debt (Adkins, 2008; Langley, 2009; Montgomerie, 2019; Soederberg, 2014b; Zaloom, 2018), marking out the nature of social relations that are central to studying debt-based funding arrangements of the state. This chapter argues that there has been a lack of engagement with student loan debt in England, in a manner that considers both the state and the market, through which its distinct politics and problematic consequences can be understood.

The chapter examines the relationship between student loans and the market, directing attention towards distinct aspects of the relationship. The first begins by laying out the conceptual underpinnings of marketisation within literature that studies HE policy (Evans, 2004; Holmwood, 2011; Williams, 2012). It points to the theoretical issues that arise when considering marketisation of HE solely in relation to private fees. Broadly speaking, such a view does not capture the intricate workings through which funding in the form of student loan debt is distributed through the market. Second, I seek to supplement this debate by placing student loan debt as an empirical object within political and cultural economy studies of debt (Langley, 2009; Montgomerie, 2019; Soederberg, 2014b; Zaloom, 2019). This literature sheds light on the use of debt in replacement of public resources and its allocation through markets, taking a specific political and economic form when established by the

state. The claim is that state interference often brings with it unexpected devastating consequences due to economic assumptions that predict the market would be the best possible solution to distribute resources. Finally, a more nuanced approach that targets debtors is taken up by detailing 'the obligation to repay' as a central constituting condition of indebtedness and futurity. Doing so helps reframe debt relations as not only economic, but also moral and temporal (Adkins, 2017; Lazzarato, 2012; Zaloom, 2020).

Student loans and marketisation

While marketisation of HE is often enabled by a shift towards private forms of funding, both in England and elsewhere, the intersection of student loans with the HE market has not been a topic of much empirical scrutiny. Despite general agreement to the centrality of the loans following the 2010 reforms, the influence of funding more broadly has been presented as a basis for explaining the insidious effects of marketisation (Foskett, 2010; Molesworth, Nixon, & Scullion, 2009; Nixon, Scullion, & Hearn, 2018). The underlying assumption that the ICR loans can be compared with private fees seems to be premised on the idea that the market mode of arranging the sector necessitates a move away from public, or rather state forms of funding. However, student loans are unlike any type of private fees. The complicated terms of the loans and the forms of indebtedness they engender entangle both private and public forms of money (Chapman, 2016), thereby resisting straightforward critique couched in the erosion of HE as a 'public good'. Although perpetuating in England a specific form of marketisation, the loans remain an object of study poorly understood. To begin to situate these claims, the following section clarifies the conceptual scope of marketisation within HE policy studies. While this literature is incorporated solely as it forms the base for understanding the development of marketisation in relation to fees, I will emphasise the contributions which carry continued relevance for the thesis.

Despite differences in definitions of marketisation, there seems to be an agreement in literature that changes to the British HE sector followed a political turning point during the late 1970s and early 1980s. For example, Smith argued that the re-organisation of the sector is the result of linking 'provision more closely to the needs of the economy' and 'applying the "market economy" to that provision' (1990, p. 94). This re-organisation is traced to policies that began in the 1980s in which an economically liberal approach is positioned

against the traditional values and public functions academia is said to carry. While any appeal to a past 'golden age', or a defence of the past as an attack on the present are limited in their disregard to the 'ivory tower' British HE once was (Evans, 2004; Newman & Jahdi, 2009). What instead is revealed is a tension that marketisation represents, a shift grounded in diverging values in which 'universities have become a distortion of the values of the academy', fulfilling instead those of the marketplace (Evans, 2004, p. 3).

Importantly, this tension in values is predicated on economic activity that was precipitated by Thatcher's government (Brown & Carasso, 2013). Namely, financial cutbacks which led to a reduction of the state fee subsidy. While it is not within the scope of this thesis to mark out all the changes to the fee structure or their effects since Thatcher, what is crucial to note is that when tied to funding, marketisation is studied as a process which introduces competition or private initiatives as mechanisms to better allocate resources (Teixeira & Dill, 2011). As Evans (2004) argues, a reduction in state funding has primarily resulted in increased sector competition over funds, where universities are held accountable for the use of public money. While inspiring literature to critique fee changes on the basis of a broader shift towards privatisation, for example in the form of a private, 'consumption model' sector that resembles the 'free' market (Williams, 2012). As will be explored shortly, starting critique with a single generalisable framing such as HE as a good that serves society, or one that carries individual benefit, entails logical difficulties to maintain those theoretical boundaries. This becomes even more nuanced with the introduction of the loans.

Indeed, 2010 marks a turning point in which HE policy studies take recent changes to English HE² funding as a fundamental element of marketisation. To contextualise, an almost complete removal of the fee subsidy and subsequent implementation of student loans to fund a trebling in tuition fees. Despite a recognition that changes to the fee structure are 'the most radical [reforms] in the history of UK higher education, and amongst the most radical anywhere' (Brown & Carasso, 2013, p. 1). Not much attention is given in literature to the terms of the loans, as well as their role in precipitating market mechanisms. For example, John Holmwood's (2011) collection of essays from various authors, titled *A*

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¹ For a more comprehensive outlook on this see (Shattock, 2008).

² Higher Education policy and research across the UK has reflected the devolution of this process which began in 1999. Of relevance here is the differentiation in funding bodies and financing of the sector. For a thorough review see (Trench, 2008).

manifesto for the public university, has been written in response to changes in public funding. On the one hand, it places the discussion on student loans as a general exemplar of the move from public to private fees. However, on the other, it is noteworthy because it questions the political ideological motivations that assume market mechanisms can serve public interest. In allowing outcomes to be determined by individuals, through fees, the market has already been defined as the best means to collectively distribute public resources. In his words: 'our new political governing caste has certainly made the market its article of faith' (Holmwood, 2011, p. 19). Nevertheless, not enough gravity is given to the loan terms and their intertwining with the market, despite recognition that non-repayment of the loans is said to result in an increase in public spending termed an 'oddity about the financing of HE' (ibid., p. 136).

On other occasions marketisation is presented as a form of *planned* distribution of public funding, which offers an alternative to the public-private binary HE policy studies are so often premised on. In Brown and Carasso's (2013) book Everything for Sale? The Marketisation of UK Higher Education a thorough detailing of HE policy over the past three decades is provided, discussing marketisation as an amalgamation of market-based mechanisms that are moderated by the state. The book covers a range of topics mainly detailing the intricate relationship that has formed between the state and the market, accompanied by changes to the fee structure. Despite recognition of their gravity, Brown and Carasso do not give much attention to the purposeful implementation of the loans to bring about market mechanisms, resulting in an analysis that relies too heavily on a general quasi-market³ framing in which simultaneously 'market modes of production' as well as non-market modes exist. Nonetheless, the book usefully points to the close-knit relations between the HE sector and the state, which cannot be easily explained with the 'state in retreat' narratives. Noting for example how student loans have more broadly precipitated increased forms of regulation to moderate market behaviour. This insight will be built on over the course of this thesis, around which I will argue much of the forms of state control operate through regulatory activity.

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³ The term 'quasi-market' has been coined by Le Grand and Bartlett (1993), describing the organisation of the supply of services in accordance to market lines with very little private capital involved (Molesworth, 2010, p. 12).

However, the most in-depth study of the HE market as a particular outcome of the ICR loans is Mike Molesworth's (2010) edited collection of essays titled The marketisation of higher education and the student as consumer. While the book takes a similar approach to the studies presented above, providing a detailed treatment of marketisation surrounding the reforms. It differs in its emphasis on the political influence on economic decisions, to reveal the ways changes to funding can be understood as a government mechanism to 'shape the detail of the market' (Foskett, 2010, p. 32). For example, unlike fees, the loans are able to produce price-based competition that has been absent in the previous system because they had been set up to create conditions in which price references quality of provision. Molesworth et al.'s attention to the intertwining of the ICR loans and the market is important I suggest because it signifies understanding markets as premised on the practices and techniques being implemented by the state, further perpetuated with changes to funding. In disputing the very idea of the HE market as a traditional economic phenomenon, marketisation is framed as an equally political and economic process through which 'governments often promote clearly defined political policies' (Molesworth, 2010, p. 2). Finally, despite recognising the ICR loans as a central pillar of educational policy to allow expansion by way of the market (Foskett, 2010), the book is mainly focused on a critical assessment of government policy which has reduced the sector to the sale and purchase of academic education.

Recent developments in student financing have given rise to conceptually different understandings of marketisation, and the role of private fees in inducing these changes. As I have shown, within HE policy studies there is hardly any engagement with the composition of the ICR loans despite a recognition of the specific market forms the loans are responsible for. These include both choice and competition as market mechanisms, as well as the political/ideological and economic framing through which such policies have been justified and introduced (Brown & Carasso, 2013; Holmwood, 2011; Molesworth, 2010). Indeed, focusing on the effects of marketisation without considering the loans, results in a general description of the sector as a quasi-market, that both reproduces state-market distinctions, and cannot account for more intricate workings of the distribution of funding. As will be explored in the Chapter Two, shifting the discussion to the techniques and processes of marketisation, allows for an engagement with the stakes of funding the sector using loans.

The following then seeks to complement this debate in regard to studies that take both student loans and debt in order to explore how to account for the loans in markets. This will be achieved through political and cultural economy accounts, to locate the thesis in relation to contemporary debates around indebtedness and to mark out the relevant points to the study of loans and indebtedness within the market.

A political economy of student loan debt

Separately, student loans and student debt have taken central themes in literature seeking to explain either the efficacy of policy or experiences of indebtedness, in a variety of fields of research. Prolific to economics in the UK and the US, this literature has developed a wide array of commentary, taking student loans to mean a financial product that can be studied in relation to the market (Bryant & Spies-Butcher, 2020; Dynarski, 2021) or as a test to the efficacy of policy (Barr, 2004; Chapman & Ryan, 2016; Johnston & Barr, 2013). While repayment plans, interest rates and debt forgiveness have all been important, central themes to this strand of literature, writing from an economists' perspective often constrain student loans to a balance on Treasury accounts. In contrast, literature that studies student debt in the UK refigures it as a source of subjectivity (Callender & Dougherty, 2018) or an experience of indebtedness (Esson & Ertl, 2016; Harrison, Chudry, Waller, & Hatt, 2015). It necessarily involves a challenge to economics, which relies on a framing of the student as a rationally acting subject, testing the efficacy of public policy.

Despite taking indebtedness as the source of student experiences, separating debt from a cultural, political economic perspective displaces the subject from, questions of power (Foucault, 1980) and the politics of the market (Fligstein, 1996) to name a few. As I will discuss in the following, when tied to the state, allocating resources through the market in the form of debt has become a constituting relation between students and the government (Zaloom, 2018). While intricately related to its political and economic justifications, drawing attention to the nature of such relations elucidates the effects of public and private indebtedness, as outcomes of student loans. This I claim has largely escaped detailed empirical scrutiny. The following then, is an exploration of the limited selection of student debt accounts that have positioned themselves within wider political economic processes. To complement this literature, I draw more widely on cultural and political economy to emphasise the manner in which indebtedness has been studied in respect to the market.

From a cultural economic perspective, Caitlin Zaloom's influential body of work on student indebtedness in the US, weaves an informed line of inquiry on the politics of its student finance system and the experiences of those indebted. While her book Indebted: How families make college work at any cost (2019) is a timely study of the complexities surrounding student financing and its effect on middle-class families. Instead, a recent article is taken up here as it emphasises the power and temporal relations that are integral to loan based solutions that have been induced by the state (Zaloom, 2018). Written in response to two crucial moments: the 2008 financial crisis and the subsequent buying of the student debt market by the federal government. Zaloom's A Right to the future (2018) places emphasis on HE funding policies which so often reproduce social inequalities, owing to the historical and political systems of power that inform them. In particular she locates the roots of contemporary governance in the institutional production of economic knowledge, which has reinforced human-capital modes of valuing HE despite the current problems in US student financing made visible by the financial crash. As an example, loans have been politically premised on the foundational reasoning of policymakers who argue that HE remains a good investment, because it results in increased labour market earnings. In her words: '[f]ree tuition does not make sense within this framework, and the advocates of a human-capital approach have not shifted their thinking to value higher education beyond individual students' labor market success or failure' (2018, p. 565). Hence not only do policymakers reinforce financing solutions which carry increased risks for those who do not end up economically benefitting from HE, a reflection of more than \$1.5 trillion outstanding student debt balances in the US alone. But due to the inescapable nature of debt arrangements, threaten young adults' futures.

In respect of the latter, the temporal framework which forms part of the empirical terrain of student loans is used both to contest the problematics of US student financing, but also to open new avenues for research. Zaloom's interpretation of the current issues are premised on displacing students from participating in their future, by both politically excluding them from influencing decisions and imposing overbearing and mostly unpayable debts: '[b]y changing the institutional power dynamics of loans – how and when debt is to be paid back – student debt could allow young adults more power to exercise their creative capacities and to govern their own lives' (Zaloom, 2018, p. 567). One question that needs to be asked

however, is whether a system that is funded with debt, no matter its lenient terms can offer new futures or open possibilities?

An interest in the tension between debt arrangements and power configurations has remained relevant in more cultural and political economic research. The stance of this literature, however, differs. This contrast is evident in Susanne Soederberg's (2014b) work on the exploitative power relations inherent to student debt in the US, important as it reveals the political nature that relations of debt facilitate. In this formulation, student debt is more generally placed within the wider logic of the credit system, representing unsecured consumer debt that is rebranded as assets to be sold in secondary markets for profit. It is her historical-materialist perspective that underpins this view, taking debt as a constitutive relation that cannot but result in more indebtedness. Thus, in contrast to Zaloom (2018) where student debt is approached through governmental policies and thus may offer possibilities for political change. For Soederberg (2014b), debt is construed as a broad social relation, utilised as a means for exploitation: 'the ever-increasing expansion of loans to student debtors who cannot meet their payment obligations' (Soederberg, 2014b, p. 691).

The identification of a logic of debt as an exploitative social relation of power, is necessarily the result of Soederberg's Marxist approach to the state and market as two separate domains. Put simply, debtors are subject to highly unequal and exploitative social relations of power that emanate from the ability of lenders to change any dimension of repayment. Underlying this exploitation is a neoliberal logic that the state enables: '[t]hrough its neoliberal restructuring strategies, the state has played several key roles in promoting and permitting the private student loan market to thrive and feed off of low-income students and their families' (p. 706). The limitation with a Marxist approach, I suggest is that taking debt as a general constitutive relation is unable to capture the private and public forms of indebtedness loans such as the ICR form.

The problems a Marxist approach carries for the study of the ICR loans can be further elucidated by unpacking Soederberg's work in relation to the market and state. This is exemplified in her work on the transnational debt architecture. For Soederberg, the market takes part in recreating the conditions which enable to increase and, in this example keep developing countries in debt (2005, p. 928). Underlying neoliberal politics are market-based intervention strategies such as deregulation, privatisation, and competitive exchange rates

to name a few, which have been utilised in debt arrangements to produce favourable political circumstances. The assumption present is that such arrangements lead to both increased profit from debt repayment, yet also, retain an imbalance of power between creditors and debtors to sustain a form of loan dependence, in her words:

Put in less sinister terms, the disciplinary and bargaining power of capital over debtor states must be administered in such a manner as to integrate debtor states into the global financial system so that they become increasingly dependent not only upon loans from private and public creditors and the subsequent rescheduling and refinancing agreements, but also on the overall stability of the global capitalist system. (Soederberg, 2005, p. 936)

Soederberg's is a view in which debtor-creditor relations facilitate unequal relations of power which are visible at varying analytical levels because the state legitimises the extension and amplification of the system that creates those debts in the first place. Of interest here, is an emphasis on the market as a mediator of such relations, in which restructuring, and rearrangement of the loans can be achieved through market-led initiatives. The key problem with this explanation for this thesis, is that it takes the market and the state as two separate operating spheres, which cannot account for the complexity of debt that is not neatly divided into public and private realms. While Soederberg provides an extensive view of the intersection of debt with the state, it is important to stress that debt relations have a complexity that cannot be captured as simply a 'strain on both debtor [states] and their societies' (Soederberg, 2005, p. 945). Indeed, as will be discussed later on, the logic of the market alongside the ways it is conceptually mobilised are intricately intertwined in relations of debt. The following then, extends the view of the intersection between private and public forms of debt, as studied in relation to the market.

In pointing to the unique relations between the state and market, wider political economic processes are here drawn into view. One such approach is Montgomerie's (2019; 2015) work on household indebtedness, which in a similar way to student loan debt discussed above, emphasises the temporal, political and socially unequal relations that permeate debt. What Montgomerie and Büdenbender's (2015) analysis of the UK housing market adds to this approach, is the volatility attributed to the distribution of resources through the market in the form of debt. In their case study, loan-based solutions are utilised as a means for replacing publicly funded welfare programmes, in which households are conceptualised

as asset holders that must aim to gain from their position. It is of interest here because it points to the benefit of incorporating different analytical perspectives, from which the resulting problems UK households have faced are articulated. Following Hewitt (2002) and Langley (2006), housing policies are premised on state practices which aim to cultivate a subject that acts responsibly to seek financial security through the market. Rather than employing a macro account of the household sector, households are incorporated as actors that have become interconnected to a market that is subject to changing political economic conditions. For Montgomerie and Büdenbender, emphasising the wager that is made when financing a house using debt reveals housing not as a source of welfare provision, but as a system that both reproduces inequalities, and incapsulates them in inescapable debt levels (Montgomerie & Büdenbender, 2015, p. 400).

In a similar vein Paul Langley's (2006, 2009) work is discussed here as he accounts for the particular state-market relations that are intertwined with private and public forms of debt. Specifically, his analysis of the subprime mortgage crisis in the US is of relevance because it extends insight on the consequences of state interference, here from a perspective on borrower obligations which emphasises the moral relations of debt. This is approached through a Foucauldian lens on the disciplinary nature of state power, revealing the politics of legal and calculative frameworks that have legitimised and reproduced mortgage debt (Langley, 2009). To exemplify, state support to increase public liability for what is more commonly private debt in unregulated housing markets, is contentious as it does not provide relief to debtors. Instead, state interference had in fact become politically problematic, as it stirred questions on the coresponsibility of lenders and borrowers. This point resembles Zaloom's (2019), who concludes that policy solutions that seek to relief debtors cannot be transformative as long as they reaffirm the nature of debt arrangements in place. In contrast to Zaloom however, Langley (2009) contends that such policies reenforce the moral logic underlying borrower obligation through 'the legal, calculative and self-disciplinary form' of state practices (ibid. 2009, p. 1406). For Langley, and in a similar manner to Soederberg discussed above, power relations of debt reproduce themselves in spite of and due to governmental interference. As his analysis shows, predatory lending practices in unregulated markets had resulted in the US subprime mortgage crisis necessitating state interference. Rather than altering market conditions for borrowers,

solutions to alleviate indebtedness had built on existing power relations between lenders and borrowers thereby always producing a responsible and self-disciplinary subject. However, Langley's Foucauldian-tinged approach to state interference in private debt through a lens of governance is theoretically problematic for this present study. Its limitations are comparable with Soederberg's view of state and market as two separate spheres, which for a study of student loan debt may have the effect of missing out on the specific forms of market activity that cannot be explained by disciplining subject' narratives in unregulated markets.

To return to the matters laid out at the start of this section, an empirical account of student loan debt necessitates consideration of the political and economic conditions that are deployed against debtors when utilised as a replacement of public resources. Political and cultural economy studies of debt have been incorporated because they place indebtedness within a wider framework that considers both state and market relations. As this section has shown, a political and cultural economic approach to student loans in the US has been prevalent in literature (Soederberg, 2014b; Zaloom, 2018).

Furthermore, in seeking to explain the consequences that result from implementing loans in replacement of public resources, this literature successfully draws attention to the nature of the relations that debt forms. The analyses presented thus far demonstrate the outcome of state interference in private forms of debt (Langley, 2009; Zaloom, 2018), tying debtors through the moral, temporal and power relations which debt allows (Montgomerie & Büdenbender, 2015; Roberts & Soederberg, 2014). While this literature is relevant for the study of student loan debt in England, as I have pointed throughout, there are general points of contestation that do not neatly translate to this thesis. In particular, taking the market as a separate, private sphere from the state has been proven problematic when attempting to account for debt that does not easily separate into this binary. I suggest that more nuance is needed to understand the particular logic of the market and its entanglement with relations debt forms. Further attention is needed to the specificities of student debt as more than a general type of debt, and the particular relations student loans produce in the HE market.

The following and final section then, seeks to respond to these questions by placing the discussion as part of the obligation to repay as a central, organising principle of relations of

debt and indebtedness. Specifically, focusing on the relationship between debt and futurity, allows to present differing accounts of subjectivities.

The obligation to repay

Debt is often considered as constitutive of obligation, defined against a promise to pay at a time that has not yet arrived (Adkins, 2008; Graeber, 2011; Guyer, 2012; Lazzarato, 2012; Peebles, 2010). To put in context, debt is the tying of temporalities between conjoining parties, creating 'a material link' that often carries consequences (Peebles, 2010, p. 227). For lenders, debt signifies denying oneself the use of concrete resources today in hope of future gain. In contrast, speculative resources are borrowed from one's own future, in exchange for using concrete resources today. As demonstrated with political and cultural economy accounts of debt, there are devastating social and economic consequences for borrowers who fail to keep their repayments (Langley, 2009), with bankruptcy for student or mortgage borrowers a potential risk (Montgomerie & Büdenbender, 2015; Soederberg, 2014b). However, the obligations of the ICR loans do not straightforwardly translate into 'failure to repay' narratives, thereby complicating a temporal account that can be easily captured against a set future. In this respect, the convoluted public and private forms of debt the loans engender necessitate elaboration on its particular operations, as well as a means to approach the positioning of subjects, and publics against obligations that do not translate into the promise to pay.

To account for the complexities of obligation requires some, in Jane Guyer's words conceptual elasticity to allow it to encompass a wide range of complex relations, casting light on the practices, accountability and dispositions that are part of debt-based relations (Guyer, 2012, p. 491). Furthering understanding of the relations that come in to play in such situations is achieved here by placing in conversation the work of Lazzarato (2012), on public debt, Adkins (2008, 2017), on speculative forms of debt, and returning to Zaloom (2020) on financing HE. As I suggest, each approach offers a different basis for understanding student loan debt, one that takes a closer look at its specificities through moral and temporal imperatives.

Discussing the relationship between debt and temporalities as a reflection of the promise to pay, is Maurizio Lazzarato's seminal work *The making of the indebted man: An essay on the neoliberal condition*. Positioned against the 2008 financial crisis, the book takes up

neoliberalism as a universal structure in which indebtedness is its most ubiquitous condition. For Lazzarato, the relation between creditor and debtor is raised to a universal, enabled by the closing down or capturing of time which limits 'the future and its possibilities' through capitalist means of control (2012, p. 46). Similarly to Soederberg (2005) discussed above, Lazzarato also views the creditor-debtor relationship as dependent on unequal forms of power, a primarily economic relation that works by 'making the economy subjective' (Lazzarato, 2012, p. 33). Subjectivity then is produced through obligation, making and keeping the promise to repay in a distant and knowable future, one that can 'estimate that which is inestimable – future behaviour and events' (2012, p. 45). It reveals a general subject that debt creation necessitates, one that has conviction in the obligations debt carries, namely that of repayment. As such, subjectivities are produced in reference to an uncertain but knowable time, creating 'a strange sensation of living in a society without time' (ibid., p. 47).

It is significant here that obligation is explained as a moral relation, simply because it does away with a separate public and private sphere, explaining instead how obligations can come to manifest both. This has been the result of the empowerment of creditors and capital owners, and a more general condition of society in which: 'everyone is a "debtor," accountable to and guilty before capital (Lazzarato, 2012, p. 7). However, proposing that society and the subject within it is intricately bound by the temporalities of debt, specifically a closing down of time which derives from the promise to pay, may be too deterministic to encapsulate all of the dynamics that student loan debt permeates, especially as non-repayment is its central condition. It is here that I turn to studies which employ a more nuanced approach to the intricate relations that debt and indebtedness hold for subjects, in the aim of teasing out the particularities that hold relevance for this thesis.

Lisa Adkins (2017) takes issue with Lazzarato's rendition of subjectivities of debt and time, instead highlighting what can be achieved by approaching obligation through debt's particular, contemporary form. In particular, Adkins scrutinises debt and repayment through a lens of temporality to mark out the 'temporal rhythms and schedules of the calculus of debt' that subjects are organised around (ibid., p. 452). In drawing on Jane Guyer's (2012) articulation of contractual debt, that is debt which is tied to dated schedules of repayment, Adkins contends that the 'steady time' of debt, namely, the exterior practices and events

that debt repayment comprises, constitutes a particular 'steady subject' that must meet those demands. It is by establishing this relationship between the particular subject that must adhere to rhythms of debt, she argues for a renewed approach towards contemporary loan and mortgage products that significantly vary in terms of their obligations.

The temporalities of securitised debt⁴ for example, differ because they are no longer geared towards the promise to repay, but instead are calculated in terms of payment of debt service. What is novel in Adkins' (2016) approach to debt is her regard of its particular characteristics, namely its calculative operations and the enrolment of debtors within such operations. This is made evident in interest only or flexible loan payment products that 'hinge on calculation of debt-service ratios by creditors, that is, precisely on the capacity of debtors to *service* rather than repay debt' (Adkins, 2017, p. 455 emphasis in original). In terms of schedules of payment, rather than predictions calculated in the present, which assume a linear projection of time, the calculus of securitised debt hinges on calculations of possible futures (Adkins, 2017, p. 455). These calculations reflect practices of lending that are either not indexed to income across working lives, or at the time of writing are simply impossible to repay. The result, calculations of debt are made against future possibilities such as events that have not yet or might never arrive and are brought into the present, demonstrating the ways 'presents, pasts and futures and crucially their relations to each other are open to a constant state of revision' (pp. 458–459).

Two points arise from Adkins' account of securitised debt that are of interest here, in terms of obligation. The first involves noting the calculative practice of debt. Adkins proposes that the variable schedules of debt, as evident in securitisation, are no longer geared towards an end point of repayment or acquittal but payment of debt service. This is attributed to changes in the temporal relations that debt is calculated against. Crucially, it provides an alternative approach to the Foucauldian tinged lens found in both Lazzarato and Langley's accounts which explain and rationalise subject behaviour as disciplined. Instead, Adkins draws attention to the ideal or preferred subject of such debts that is constantly recalibrated in accordance to schedules of payment. The second point relates to the first, which argues for the importance of noting the architectures of debt, namely 'what debt is

⁴ Defined as 'the pooling and slicing of the attributes of contractual debt and the transformation of these attributes into liquid assets which can be traded' (Adkins, 2017, p. 459).

and how it operates' (2017, p. 456). As Adkins argues, for securitised debt, shifts in the calculative practice of debt should be understood in relation to the process of securitisation, how such debt becomes productive. In this respect, Adkins' account raises important questions on the temporalities of specific forms of debt and how these are tied to specific, preferred subjects.

For others such as Caitlin Zaloom, the relationship between temporalities and debt cannot be explained solely in terms of economic calculation. Zaloom (2020) offers an alternative approach to both Lazzarato (2012) and Adkins (2017), arguing to view temporalities as embedded not only in calculative tools, but the policy frameworks which establish moral obligations to calculate. Importantly, Zaloom's (2020) argument is explained in reference to how the future is planned and imagined, drawing attention to the processes and mechanisms of government that mobilise moral narratives. It is in part an institutional approach that can be exemplified through 'regimes of foresight', namely a trajectory set towards a future time that both provides the financial tools to achieve it whilst simultaneously acting as a measure to evaluate the success or failure of such trajectories. While Zaloom speaks more broadly of the ways middle-class financially plan for HE, an analysis that considers the ways institutions establish the conditions for planning is useful because it places the future as a central temporality that both constitutes and shapes obligation in terms of morality. Temporalities do not then only exist as an external relation to subjects, but are part of the very financial tools that make subject calculate.

This manner of accounting for obligation which emphasises the moral imperatives governmental policies disperse, may resemble for some – to come back to Foucault's term – the disciplining of subjects. For, in focusing on the obligations of debt is said to produce specific subjectivities that govern individuals by placing "control over the future," since debt obligations allow one to foresee, calculate, measure, and establish equivalences between current and future behavior' (Lazzarato, 2012, p. 46). Instead, what I take from Zaloom's account is an analytical approach which examines the institutional and moral ties that are revealed in policies and financial tools, through which subjects can operate. As will become clear, this insight is particularly important in regard to financing English HE with the ICR loans, in which the moral imperative to take and repay a loan is clearly mobilised in government policies.

This section has sought to engage more closely with the subject in debt, specifically in relation to obligation. As I have shown, studies take the obligation to repay as constitutive of the temporalities that debt creates, vary in their approach to explain the ways obligation and subjects are tied. For Lazzarato (2012), a universal promise to pay reflects the ubiquity of the creditor-debtor relation in society, enabled by power relations that expose the subject to uncertain modes of time. In contrast, Adkins (2017) questions such a straightforward understanding of temporalities and debt, instead exemplifying how payment schedules tie subjects to specific orderings of time. While both accounts are useful for understanding temporalities of debt as external events that organise subjectivities, Zaloom's (2020) analysis offers a different perspective, instead pointing to the ways moral narratives become embedded in financial tools, positioning subjects in relation to a defined future.

Conclusion

This chapter has sought to lay out some of the key theoretical and empirical issues at stake for the study of student loan debt. In part, the aim had been to draw out the empirical problematics alongside marking the theoretical models that have continued relevance for this thesis. What is quite evident is the absence of a detailed empirical account of student loan debt, in particular one that takes into view the English HE market. The chapter has argued that within this empirical terrain of the ICR loans, there are significant opportunities to expand the analysis to include the state, market and debtors as central, consequential actors. In addition, I have also suggested that while cultural and political economy studies of debt have offered a range of valuable insights which point to the political and economic frameworks that are integral to debt. However, approaching debt either as a resource to be dispersed by market forces, or used in replacement of state funding may not easily translate in this thesis. The English HE sector constitutes a particular marketised area, one that necessitates a more suitable theoretical approach to account for its relations with the state and the use of loans as a means of funding. Despite such limitations, this literature has proven particularly useful to account for the obligations that are formed as part of its architecture. A closer look at the specific ways debt comes to entangle participants raises crucial insights for the study, especially when studied as part of market logic. As this thesis

will demonstrate, it is in opening this theoretical space that an empirical study of student loan debt can be productively had.

In summary, what has been presented in this chapter thus far is a review of the existing literature that may be relevant for the study of student loan debt. First, I sought to situate the discussion in relation to HE policy studies to argue for viewing student debt in relation to marketisation processes. While this literature recognises the importance of student loans to precipitating market forms in the HE sector, noting for example choice and competition as market mechanisms that have been implemented to more efficiently distribute funding (Molesworth, 2010). The ICR loans remain a poorly understood funding solution in relation to marketisation processes. This I have attributed to the underlying assumptions present in this strand of literature that places marketisation as the erosion of HE as a public good or compares the ICR loans with private forms of fees. Second, I have placed this discussion within current accounts of political and cultural economy. Both because this literature reveals the political and economic justifications that have precipitated loan-based solutions to be dispersed by markets, or established in place of publicly funded government programmes (Montgomerie & Büdenbender, 2015; Soederberg, 2005; Zaloom, 2018). In doing so highlights the social and economic consequences that form as a result of debt obligations. And third, further scrutiny is called for to incorporate debtors within the analysis. This has been achieved by including studies that have taken the obligation to repay as a central relation, one which organises debtors in relation to temporal and moral obligations (Adkins, 2017; Lazzarato, 2012; Zaloom, 2020).

With these insights in mind, the thesis will proceed by placing student loan debt as an empirical object within economic sociology literature, one that may offer a particular, and nuanced approach to the study of markets.

Theoretical framework

On collective concerns and accountability devices: An approach to the study of student loan debt

Introduction

This chapter sets out in greater detail the theoretical framework used to engage with student loan debt and indebtedness in the English HE market. It responds to the key theoretical and empirical problematics raised in the previous chapter by drawing these out further, and in so doing making a case for placing the object of study within the field of economic sociology. At the same time, this chapter begins to mark out the contribution of this thesis to specific debates within the social studies of markets. It argues that there is room to draw into conversation work that has sought to examine how markets become purposefully implemented as solutions to public problems (Nik-Khah & Mirowski, 2019; Ossandón & Ureta, 2019), with work in STS that situates the problem-solution relationship as part of sociomaterial entanglements (Marres, 2011). Doing so allows to foreground an aspect of the problematic that has yet to be discussed, but is consequential for the study of debt – temporalities (Leistert & Schrickel, 2020; Schrickel, 2020).

The chapter will discuss literature broadly construed here as 'the social studies of markets' within economic sociology. It draws on market devices (Muniesa, Millo, & Callon, 2007) and organised markets (Frankel et al., 2019) as useful analytical tools to explain how the state governs non-market areas as markets to achieve predefined goals, through tools that entangle participants in market relations. The chapter is thus separated into three sections. The first, draws into view political economy studies of debt (Langley, 2009; Soederberg, 2005, 2014b) to explore what can be gained by placing this thesis within economic sociology literature that studies market organisation (Callon & Muniesa, 2005b; Frankel et al., 2019; Nik-Khah & Mirowski, 2019). Namely, bringing to the fore expertise highlights the particular market activity established by policymakers, a more suitable approach for this thesis to a distinct market and state. The second introduces separately market, and accountability devices (Neyland et al., 2019b) as an approach which traces the operations of markets, here through debt and its obligations. It offers this thesis a means of accounting for the relations of debt as part, rather than external to the market. The third and final section then, builds on Callon's (1984) problematisation in reference to markets (Neyland, Ehrenstein, &

Milyaeva, 2019a; Neyland & Milyaeva, 2016; Ossandón & Ureta, 2019), combining expertise and devices as ways of demonstrating how the problematic is constitutive of indebtedness and in particular the obligations of (non)repayment. This is discussed with literature within philosophy of science, because in asking what problems are draws attention to the temporalities (Schrickel, 2020) and forms of control (Deleuze, 1994) problems sustain.

The market as concept

In the previous chapter, I discussed literature that critiques marketisation of the state as a general shift towards private, loan-based solutions that distribute funding through market mechanisms. Namely, literature that studies HE policy collectively critique privatisation, increased competition and commodification as market mechanisms implemented by the state, further perpetuated with changes to funding (Brown & Carasso, 2013; Holmwood, 2011, 2014; Molesworth et al., 2009). From a different perspective, within political and cultural economy studies of debt, the state and market are bound by political and economic conditions, an analytical entry point to unmasking government deployed debt-based solutions and the consequences these carry for debtors (Langley, 2009; Soederberg, 2014b, 2014a). However, the empirical terrain that comprises the HE market and student loan debt does not easily fit within the framework suggested by these accounts. The loans make up both private and public forms of debt which do not reflect a neat demarcation of the state and market, also challenging critique that conceptualises the HE sector as a 'quasi-market' (Brown & Carasso, 2013). Rather than treat the market as a single unifying frame, signifying a larger mechanism that may anticipate and produce the same 'methods, problems or consequences' (Neyland et al., 2019b, p. 261). What is required by the study of student loans is a theoretical approach that is able to trace out different arrangements of markets through which participants are tied by relations of debt.

The question then becomes how to engage with indebtedness as entangled within state-market relations, whilst keeping the specific features of the market in view? As alluded to above, it requires a conceptual approach that offers clarity on what the market is, as well as consideration of the interactions and processes that take part in such spaces. Such an approach can take debt as more than a constitutive social relation that is broadly dispersed, and instead attend to how the market and particular forms of debt themselves configure debtor realities. I refer here to a specific strand of literature within economic sociology that

can be broadly collated under the label social studies of markets. This field is engaged with because it takes markets as outcomes of organisation, with devices, experts and actors foregrounded as means for studying the market as a particular, local arrangement (Callon, 1998b; Frankel et al., 2019). In particular it is able to demonstrate in great detail how markets are outcomes of both economics and politics. However, this literature is diverse in its analytical perspective and methodological tools, associating organising work with a different set of actors and practices, and thereby providing a varied approach to trace the operation of markets.

The evaluative work of experts

This section presents a distinct empirical object 'markets for collective concern', which as the name suggests, comprises of markets, or market features that have been deployed to address collective concerns (Frankel et al., 2019). The study of 'markets for collective concern' distinguishes itself from other social studies of markets because of what it understands markets to be. It does so by moving away from a pre-defined notion of the market, challenging the conceptual paradox that exists in literature where authors begin with their own definition of markets. Instead, it turns attention to forms of expertise such as market designers, that base their claim to knowledge on the organising work of markets (Nik-Khah & Mirowski, 2019). It is an analytical approach that reveals the work of policymakers, as market experts, which 'in their evaluations, [market designers] mobilise different conceptions of what an ideal market is, changing in turn the type of market constructed' (Frankel et al., 2019, p. 10).

Indeed, this strand of literature is relevant to a study of the HE sector, because it deals with markets, or market features such as choice and competition that have been purposefully implemented to resolve problems in traditionally non-market areas such as transport (Ossandón & Ureta, 2019) and the environment (Neyland et al., 2019b). As pointed to with HE policy studies, the HE market should be understood as an equally political and economic process through which governments promote defined goals (Molesworth, 2010, p. 2). This literature gives analytical depth to this point. Specifically, it approaches markets through the work of experts understood as aimed at solving the problems, or 'matters of concern' that non-market sectors are said to hold. To explain, matters of concern has been coined by Latour (2004) to describe a political process in which facts are replaced with issues, ideas,

and forces that persist because they are cared for. In offering a political analysis of market formation in relation to experts, it provides a novel lens to the ways markets are governed arrangements.

The positioning of market designers, as experts that are central to the analysis thus enables viewing the structuring work of markets as evaluative. It includes noting the ways specific knowledge is established to function in relation to an ideal market form that the area is expected to take. Put simply, markets for collective concerns are markets and policy instruments (Lascoumes & Le Galès, 2007), meaning policymaking is the continuous evaluation and, crucially repair of such areas. That is, rather than seeking to establish a particular definition for markets, this literature offers a critical lens to study areas that have been evaluated 'as if they were markets' (Ossandón & Ureta, 2019). This point can be better illustrated with Ossandón and Ureta's (2019) account of the healthcare and transport reforms in 1980s and 1990s Chile. The authors demonstrate how the concept of the market mobilised in the initial reforms had been applied to differentiate the area from public administration and instead initiate a market that is understood as a spontaneous arrangement, based on choice, competition and private provision. Yet its evaluation a decade later had been achieved by comparing the area against an ideal market form, assessed in terms of insurance economics. Such evaluations are not to be taken lightly. For the Chilean healthcare and transport sectors, they precipitated crucial reforms.

In this context, approaching markets through experts, which this thesis draws on, raises two important points. First, it argues that markets are necessarily outcomes of technical expertise (Jenle & Pallesen, 2017). In this respect, noting the particular form the HE market is expected to take and the work that is necessary to achieve it. And second, it points to the transformation in the role of such work. Experts, or market designers no longer reprimand agents for not acting in an expected rational manner, but instead change the conditions of the market so that it works in the 'best' possible way (Nik-Khah & Mirowski, 2019). This second point is imperative as it provides an analytical counterpoint to political economy accounts that seek to reveal the exploitative relations of power that constitute student loans, as resulting from neoclassical theory 'and its underlying assumptions of rationality, efficiency, and individualism' (Soederberg, 2014b, p. 695). Instead, it offers this thesis a

novel way to account for the tie between debt and market relations as the outcome of organising work.

Indeed, up to this point I have centred on the role of the expert as imperative to the evaluative work of markets. This approach has been discussed because it provides clarity for a study of the HE sector as more than a general 'market' form, and instead demonstrating that it can be understood as a result of the practices and techniques implemented by the state. For, while marketisation is often analysed as an economic process, as raised in the previous chapter, HE policy studies understands it simultaneously as political and ideological (Evans, 2004; Molesworth, 2010), often resulting in different, contrasting definitions to what is actually being singled out for study (Nik-Khah & Mirowski, 2019, p. 269). Paying attention to the concept of the market at hand will provide the thesis with methodological clarity, because it foregrounds expertise as actors who implement market features. In this respect, what has yet to receive attention is the role of the state in this formulation. This is especially prominent because as raised at the start of this section, when deployed by governments, it is assumed that markets offer the best means for achieving set goals and must be understood in the context of a political and economic framework.

The market as a governed arrangement

The following traces the historical underpinnings of expertise in relation to both the state and the market. It presents the changes to the ways markets had been conceptualised, in a fluctuating relation to formal organisation, to provide context for the reasons markets are expected to offer the best solution to collective problems. This is achieved with the aim of producing an approach that is capable of accounting for the implications of governing collective concerns through markets.

An opposition between markets and organisation can be traced to the later years of the twentieth century. Austrian neoliberals such as Hayek (1991) reconceptualised the role of the market to mean a mechanism that is able to solve and *find* new solutions to existing problems (see also Buchanan & Vanberg, 1991). It was part of neoliberal thought which, Mirowski (2013) shows deemed markets as a preferable solution to collective issues in contrast to both bureaucracy and organisation. For example, in place of bureaucratic decision-making, market competition becomes a particularly resourceful mechanism to solve problems because it produces a better 'self-generating' order (Hayek, 1991, pp. 294–

295). While neoliberal economists like Hayek shared the neoclassical view of a spontaneous, non-regulated market. What is crucial to highlight is that arguing against any external interference in the market such as planning or regulation, advanced conceptions of the market as the source of solutions because bureaucracy could never match 'the knowledge-processing ability' of market mechanisms (Frankel et al., 2019, p. 7). But, as noted by Nik-Khah and Mirowski (2019), an important transition occurred in the 1950s, which saw Hayek's thought adopted by economists such as Leonid Hurwicz, who redefined their task to externally assess and utilise the informational properties of economic systems with the aim of informing new types of institutions – markets. It had been a crucial transition towards the assumption that markets in fact require organisation.

While the above certainly does not do justice to the rich conceptual history between the market and organisation,⁵ the key point from this discussion that resonates for this thesis is the organised character of markets. Mainly because when tied to the state, work within the social studies of markets has shown that the particular form of governance becomes inscribed into the design (Jenle & Pallesen, 2017, p. 381). To draw out its implications for the analysis, Jenle and Pallesen's study of engineering electricity markets in Denmark highlights what can be achieved when tracing the planning, design and implementation work of markets. Their analysis follows the case of EcoGrid, a market deliberately organised to decarbonise the energy system in Denmark. It had been implemented with the aim of reversing the traditional supply and demand model of electricity markets and instead accommodate a demand-led model, characteristic of renewable energy technologies. Of interest here on two counts. First, it draws attention to markets that are political outcomes. Market mechanisms such as price are part of governance initiatives inscribed into the design, implemented towards achieving defined goals. In this respect, markets that have been implemented to resolve issues of public governance are ultimately geared towards 'attaining political ends' (Jenle & Pallesen, 2017, p. 389). The result, political problems are framed in economic terms, and as the authors demonstrate such problems are often shifted onto consumers who now carry responsibility for achieving the role and objective of the market. The second point draws on the first, highlighting the role of consumers within such markets. In this respect, it is not only market mechanisms that are inscribed into the design,

⁵ For an in-depth account of this turn (see Nik-Khah & Mirowski, 2019).

part of governing markets such as EcoGrid is to integrate and shape consumer conduct. This is achieved through various 'disciplining' practices that essentially 'granted the consumer a central position within the arrangement' (Jenle & Pallesen, 2017, p. 390).

The study presented above has given analytical detail to the idea of governing markets through organisation. This thesis takes much from such approaches, as it extends work in political economy that argues for understanding markets as outcomes of economic and political circumstances, by demonstrating how these come to permeate market activity. More importantly, it offers a distinct approach to placing discipline as part of the market. As discussed in the previous chapter, the disciplinary power of the state has often been shown in Foucauldian tinged studies that place state practices either against unregulated markets which exploit debtors, or reenforce the moral logic of debt obligations (Langley, 2009, p. 1406). However here, an approach to markets as governance is employed to provide a steer towards where to place debtors within market activity. The following then is a short discussion offering more conceptual clarity to account for the state-market relationship, as governance, and the lessons it holds for the HE market.

To begin to situate governance as a central feature of the state and market, it is worth beginning by looking at the reasons markets are favoured as solutions to collective problems. In this context, this thesis draws on the Foucauldian (2008) formulation of governance, described during his lectures at the Collège de France, to denote a rational of government, or a way of practicing government. This interpretation has been implicitly touched on in the discussion above, as it forms part of the empirical terrain of 'markets for collective concerns'. Within markets for collective concern, markets, or features attributed to markets do not simply sit at an external relation to the state, but become an active goal that governments pursue (Frankel et al., 2019, p. 7). What this implies is a political relation where markets become models of government. This distinction can be further exemplified through Reverdy and Breslau's work on the politics of market design in the French electricity sector.

Markets, they claim, are not separate from politics, nor are they simply an entity constructed to allocate state services in an efficient and peaceful manner. Instead, drawing on Fligstein's (1996) view that markets are political institutions, they argue that the role of markets is to mediate and 'govern the politics of distribution' (Reverdy & Breslau, 2019, p.

199). In effect this signifies the market as an institution which not only delimits but produces its own justificatory logic and values, a political arena that acts by defining the ways claims can be legitimated and formulated. More crucially, the state colludes with this market politics, which now intervenes in support of the market. This is viewed as a shift in the role of the state from 'market steering' to 'market supporting' (Levy, 2006).

Such an understanding of the market and state which takes account of the intentionality and specificity is very telling for this thesis. That is to say, in placing emphasis on the objective, or collective concern markets are organised around, reveals not only the purpose and the work of experts towards which markets are implemented, but the effects this carries for market actors, here students and universities that become organised around political goals. Or, as Jenle and Pallesen write:

Markets may be the outcome of various types of expertise and that the ability to comprehensively shape the lives of market participants might easily be granted to market designers mobilizing diverse forms of knowledge. Significantly, while various forms of expertise are likely to lead to different modes of market organization, different ways of structuring markets may have very diverse effects on market participants. (Jenle & Pallesen, 2017, p. 391)

In respect with the above, an approach to the study of the HE market through markets for collective concerns, understands the implementation of market mechanisms as a political means for achieving state goals. Crucially it speaks of the ways in which the market is composed, or governed in an ongoing relation to the way it is funded.

In conclusion, this section began in search of an approach that is able to explain indebtedness as entangled within state market relations, whilst keeping the specific features of the market in view. To do so I introduced a field within economic sociology termed the social studies of markets (Callon, 1998b; Frankel et al., 2019), specifically 'markets for collective concern' (Frankel et al., 2019). It offers a novel approach for the study of the HE market, locating the organising work of markets in relation to expertise, thereby producing a closer-knit relation between the state and the market. This is achieved by considering the various conceptualisations of markets that are mobilised by experts, where market features are claimed to offer the best solution to public problems (Ossandón & Ureta, 2019). This reading provides the analysis with a perspective of markets as policy instruments, in which market features become goals of government. Attention here should

be paid to the role of the expert in designing and evaluating the market, as well as outlining the aim such market features have been introduced to achieve. The following section continues this thread, but from a different analytical perspective in order to produce an account that is able to consider debt as part of this rendition of markets.

Socio-material networks and market devices

In posing the rhetorical question 'what *makes* a situation market-like?' Michel Callon (McFall & Ossandón, 2014, p. 518, emphasis in original) had effectively fleshed out a particular performative process that includes the devices, objects and participants that make markets. This question resonates in this thesis because there is need for adding empirical nuance to the ways student loans take part in the HE market. As raised in the previous chapter, the loans have been said to induce price-based competition as means for distributing resources (Foskett, 2010, p. 32). Alongside market mechanisms, student loans are responsible for both private and public forms of debt, and as such, should also be studied in terms of the enrolment of students into moral, power and temporal relations (Soederberg, 2014b; Zaloom, 2020). A central task for this section then, becomes how to account for the obligations that debt forms in markets, as specific market relations. This is of particular importance because, as demonstrated in the previous section, when implemented by the state, market mechanisms are organised towards achieving political outcomes (Jenle & Pallesen, 2017).

Market devices then offers a useful lens into markets as governed arrangements because it points to the ways market mechanisms coordinate participants in accordance to set economic terms (Muniesa et al., 2007).⁶ However, this also raises the issue of associating the market with a specific type of economic relation. For, market devices become such because of an economic framing that makes things calculable (Callon & Muniesa, 2005b). In this context, a more flexible approach is required to allow devices to bear more than simply economic relations, as a reflection of the multiple relations debt configures. As such, I introduce 'accountability devices' (Neyland et al., 2019b) as a means of addressing this critique, allowing for a view of markets as consisting of experts and devices that take part in

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⁶ Here it is important to note that 'being economic' should not be taken in solely to mean the establishing of valuation networks. Instead, an economic agencement denotes a multiplicity of possible definitions, which are included within, for example: 'through the presence of competition, or of accounting methods that identify and allocate profit' (Muniesa et al., 2007, p. 4).

different arrangements. The following then sets the scene by presenting market devices, as a socio-technical approach to market making. As well as introducing accountability devices and the merit such a framing holds for the analysis.

A central aspect of a socio-technical approach to markets, are the devices that make a situation market-like (Callon, 1998a, 1998b, 1999). Situated within Actor-Network Theory (ANT) which broadly speaking, emphasises relations that occur between actors⁷ within a network. Callon's (1998a, 1998b, 1999) contribution to the economic sociology literature, specifically within performativity and socio-technical studies of markets, is emphasising economic calculation as central to market making. Notably, the framing processes that disentangle agents from existing external relations and entangle them into market relations. As McFall and Ossandón eloquently explain: 'framing extricates or disentangles agents from this network, but as the frame can never be hermetically sealed, overflows inevitably occur. However temporary and incomplete, the work of framing and disentangling is a prerequisite for market transactions as this is the only way the stage can be cleared for calculation to take place' (2014, p. 9). Markets therefore are distinctive because market devices play a key role in the disentangling and re-entangling of participants in new economic relations.

The result is a particular type of calculative, economic interaction as a market arrangement (Muniesa et al., 2007). To briefly explain, calculation is separated into steps, which begins with the detachment of actors and their subsequent arrangement within a single space. These calculative spaces can be as broad and varied as an invoice, trading room or shopping cart. Second, agency is distributed to establish a common operating principle which enables the comparison, sorting and manipulation that is performed in the calculative space. And finally, the entities are re-attached, and a result, or market output is extracted. For example: 'A shopping cart is a material device for sure. But it is also enacted, in particular, as a "market" device because it reconfigured what shopping is (and what shoppers are and can do)' (Muniesa et al., 2007, p. 3). In simple terms, market devices are material entities that distribute agency by entangling participants, including people, objects and resources in economic relations through processes of dis- and re- entangling.

⁷ Actors here includes both human and non-human forms of agencies such as 'prostheses, tools, equipment, technical devices, algorithms, etc' (Callon, 2005, p. 4).

It is of significance here that market devices configure and reconfigure action. As Muniesa et al. (2007) explain, market devices should be recognised because they are involved in organising participants into spaces of calculation, as well as setting the economic terms for their participation. In the context of this study, understanding debt as a market device means taking the socio-material and technical infrastructures that debt engenders as part of what permeates the market, rather than relations that sit externally to it. It provides for an alternative approach to the one discussed with political economy studies of debt which take the market as mediating the political and economic relations that are formed between debt and the state (Soederberg, 2005). Instead, the market and debt become consequential for achieving the state's political goals in and of themselves. More notably, to approach debt as a market device is an especially important requirement because it enables to understand student loan debt as part of a market framework, or a co-ordinating mechanism which entangles participants in particular relations. In doing so the process through which students and universities become entangled within market relations becomes clear.

However, a note of caution must be raised about accounting for the relations of debt as part of the market solely in economic terms. As pointed out in the preceding chapter, debtors are organised around moral (Lazzarato, 2012; Zaloom, 2020) and temporal (Adkins, 2017) obligations that reflect the particular operations and framework of debt. It necessitates an approach that allows some flexibility in terms of what a market arrangement signifies, steering away from the market as a monolithic entity with set economic terms (Mirowski, 2013). The latter point has been critiqued by Christian Frankel, who argued for an analytical approach that pays attention to the different conceptions of markets that are mobilised in a specific empirical field, or 'multiple markets' that may simultaneously exist (Frankel, 2015, p. 538).8 In this respect, I introduce the concept 'accountability devices' coined by Neyland, Ehrenstein and Milyaeva (2019b) as means of accounting for the particular arrangements markets may come to express that result from devices co ordinating participants into normative and economic relations. This final part marks out the advantages of incorporating accountability devices into the analysis.

⁸ The 'multiple markets problem' is a critique aimed at the social studies of markets literature, specifically the new, new economic sociology, which fails to deal with the equivocality of markets that may exist in a single field of study (Frankel, 2015). For example: 'the milk sold in a supermarket is part of a *supermarket* and also a part of a milk market, a beverage market, a market for agricultural products, and so forth' (p. 1).

Accountability devices have been defined as a way of accounting for devices within 'markets for collective concern', to reflect the moral and political aspects at stake (Neyland et al., 2019b). In so doing normative terms are considered alongside the economic, when selective features of markets are implemented, or what the authors refer to as market-based interventions. While normativity includes delimiting obligations, who and what should be responsible and accountable for who and what, it may differ according to the collective concern the intervention is aimed towards. To explain, Neyland et al. (2019b) usefully point to the role accountability devices come to bear, that of co-ordinating different participants. Part of the dis-embedding and re-embedding of relations that is involved in this process, is also setting economic alongside normative expectations for the behaviour of participants. Such as who and what acts within this space, giving effect to particular market phenomena. Indeed, because market devices entangle participants in new relations, they 'also anticipate and attempt to establish expectations regarding participants' future role in the intervention' (pg. 246).

To exemplify how such devices are employed to achieve collective concerns, Neyland et al. (2019b) examine electronic waste management in the UK, introduced to establish efficient ways of handing electronic waste through competition. Central to this intervention is weight of waste, an accountability device which set economic and normative terms for participation by providing participants with special scales to produce evidential requirement for processing e-waste. In this context, responsibility had been distributed for the ways in which weight of waste is to be processed and by whom, and the evidence participants needed to provide. As well as distributing economic accountability by specifying who pays for what, at times shifting the costs onto consumers.

In this respect, accountability devices are of use here because they do not dictate a specific form the market should take but instead, allow for a flexibility of outcomes based on the particularities of the device and the concern it is aimed at resolving. Yet more importantly, they draw attention to the terms by which participants are configured into relations. For an analysis into student loan debt, this is incredibly useful as it allows noting the ways the

⁹ In seeking to extend the relationship between theory and reality as more than representational, Callon (2007) repurposes Hacking's (1983) term *intervention* to denote the actualisation of theory that intervenes to produce action. Markets then are not simply representations, but also interventions.

obligations of debt come to be expressed as part of market relations. It would include noting the terms of the loans as well as the market mechanisms, such as choice and competition student loans are organised around. As will be presented in the analysis, the private and public forms of debt student loans establish, becomes a crucial aspect of governmental practice which coordinates different participants.

This section began with the aim of deciphering what differentiates a market, from a nonmarket space as part of the endeavour to delve into the role of market devices. As I have shown, the socio-technical strands of economic sociology draw out the calculative processes at the heart of markets, in which market devices play a key role (Muniesa et al., 2007). Market devices are of interest here because they are able to account for how participants are entangled in such spaces, signifying the distribution of agency. Such an account is also useful for addressing the ways relations of debt, which do not sit at an external relation to the market, but instead come to permeate it. However, in seeking to account for both the particularities of student loan debt as well as the HE market, a more nuanced approach has been sought after. This has been achieved by discussing accountability devices as material objects that have been studied in relation to markets for collective concerns (Neyland et al., 2019b). These devices are examples of the ways normative terms become part of coordinating participants into market spaces, namely the distribution of obligations and responsibility. What is yet to be discussed, are the problems that may arise from such configurations, as these highlight a much-needed gap between the assumptions that expertise incorporates within ideal market forms, which do not always occur in practice. This analytical framing offers a manner of spotting the ways problems arise in such arrangements, but more crucially how they have been dealt with. The following and final section marks out an account of problems, as it has been discussed within the social studies of markets, combining with this literature philosophy of science to elucidate a thinking on the temporality of debt as a problem.

The temporality of problems

Taking seriously markets for collective concern and their failures requires asking how such concerns come to matter, and how are accountability devices involved in addressing concerns as public problems? Above, I shortly introduced matters of concern to describe the gatherings of issues, ideas and people that come to matter because they are cared for

(Latour, 2004). This term has been incorporated within the social studies of markets literature as an inquiry into the purposeful deployment of markets, a means for responding to what are often non-economic problems, or traditionally non-market areas in novel ways (Callon, Méadel, & Rabeharisoa, 2002; Jenle & Pallesen, 2017). In this context, a central component of this process, and one that will be of focus throughout this section is problematisation (Callon, 1980). In the work on markets for collective concern, this term has been employed principally to demonstrate the ways market arrangements become problems in need of repair by experts, set against ideal market forms (Ossandón & Ureta, 2019). From a socio-technical perspective, devices become forms of engagement, which are employed as means for responding to particular problems in preferred ways, as exemplified with the smart meter (Marres, 2011). Yet as part of markets for collective concerns, accountability devices give precise form to concerns and the commitments that need to be discharged to achieve resolution (Neyland et al., 2019b). This approach, which this thesis draws on, follows the transformation of issues into problems. It is applied here to make sense of the ways political, economic and normative concerns are framed, to determine market arrangements and give precise form for participation.

In addressing these questions however, a further sense of the problematic arises in relation to the object of study – that of obligation. As previously stated, part of the aims of this thesis is tracing the ways debt comes to form market relations, particularly through obligations. However, the obligations of the ICR loans do not straightforwardly translate into 'failure to repay' narratives, geared towards a predefined future. In incorporating problematisation as part of a study into the HE market and student loan debt, obligations of debt must also then be understood in relation to time, especially a future time of debt and indebtedness that has not yet arrived (Adkins, 2017, p. 452). To make sense of the ways problematisation is constitutive of time, this section engages with literature in the philosophy of science (Leistert & Schrickel, 2020). In this respect, a focus on problems may help clarify how debtors, as market participants are organised through external, determining temporal rhythms, and how such problems are framed to be resolved in terms of the market.

The transformation of public issues into problems, includes a political process of recognising and framing an issue, alongside adjoining technical terms and expertise that determine a

path for resolution or political action (Barthe, 2009). This approach to problems from the perspective of experts, takes much from Callon's work on scientific controversies (1980, 1984), which identifies problems as a power struggle, a means to impose a subjective view of the world (Callon, 1980, p. 198). Callon's problematisation then also denotes an important analytical orientation to this thesis because it makes its object of study actors who problematise, specifically following the ways issues become 'delimited objects of knowledge, measurement and control' (Frankel et al., 2019, p. 12). Indeed, part of following problems from the perspective of actors, enables tracing the political framing that becomes a central part of replacing public funding with private solutions. In that sense it is also very revealing for the particular form the ICR loan takes, namely its operations and terms, and of course the obligation it carries for debtors comes to reflect the technical knowledge and views of experts.

Problematisation should however, be also understood in terms of market-based solutions, as marketisation of HE is presented as a process for efficiently distributing state resources. In this respect, problematisation has been specifically adapted within the study of markets for collective concerns, mainly studied in relation to expertise. To exemplify, Ossandón and Ureta's (2019) draw out two central points from Callon's (1980) treatment of problematisation to study policy reforms in Chile. The first, the demarcation of new problems establish with it, both collective and individual agents that participate in the definition. And second, problematisation is rarely resolved, instead problems come to displace other problems. Both points elucidate how problems are defined against ideal market forms and in doing so set out the type of reparative work and the expertise that the market necessitates (Ossandón & Ureta, 2019). While such studies have shown how markets are believed to offer the best solution to public problems, it is often the ideal market that is a point of political contestation between experts (Frankel et al., 2019). Accordingly, in the analysis I follow how the HE market became problematised, as well as attending to the groups of expertise that emerged alongside the problem. Specifically, because the reforms had been set up to resolve public funding problems, I pay special attention to the ways problems have been reworked, from an issue of government to that of the HE sector.

However, because this study also concerns student loan debt as part of the HE market, problematisation should also be considered in terms of devices. Doing so draws into view the ways participants not only become entangled in the market as an arrangement aimed towards resolving a collective concern, but how devices come to define engagement as a reflection of the problem and solution. For example, Marres's (2011) work highlights how sociomaterial entanglements of both people and things, become engaged in the establishment of issues. In this context, the smart electricity meter is used to demonstrate what constitutes an environmental problem whilst simultaneously offering a solution. Importantly, the efficacy of the solution is measurable - the ability to know the amount of one's energy consumption. It signifies participation in the problem as both a measurement, but also a feature of the problem-solution relationship. While for a study of student loan debt as a market device, problematisation makes visible the particular ideals, understood as a form of political participation. There is a further aspect of market participation that is of particular interest here – that of obligation.

A key situation in this context is the ability to draw attention to the means by which debt obligations become a measurable aspect of both participating in the market and in this respect, fulfilling the conditions of the market as a collective concern. It is here that accountability devices are particularly useful because they both give precise form to the collective concern but also specify the commitments that need to be discharged to reach resolution (Neyland et al., 2019b). Importantly, in setting the conditions for participation, accountability devices also draw attention to the problems that may arise when the desired outcome anticipated during the design stage has not been achieved. This 'messiness of outcomes' is made visible through the prefigured normativity the devices establish, providing the means to note when an issue had occurred. In highlighting the ways such failures, or problems arise, allows engaging with how failure to meet obligations have been dealt with.

As raised in the previous chapter with Adkins (2017) and Zaloom (2018), debt repayment may become problematic if debtors are unable to meet their obligations. For the analysis it allows engagement with the contractual aspect of student loan debt, namely the obligations it holds for subjects as well as how problems of indebtedness had been handled once non-repayment of debt occurred. Crucially, in emphasising the 'messiness of outcomes' brings

the HE market into view because it demonstrates how problems may arise from market design and evaluation, with student loans playing a central co-ordinating role. However, there is one further aspect of problematisation that must be engaged with because the obligations of the ICR loans do not easily reflect failure to repay narratives. In this respect, the obligations debt holds cannot be limited to moral questions that involve distributing responsibility, but instead must also be viewed in relation to time (Adkins, 2017).

Generally speaking, schedules of debt repayment are calculated against an unknown future, where temporal rhythms of debt tie the subject to specific forms of repayment time (Guyer, 2012). These schedules may be adjusted in accordance to the particular requirements of debt, yet in doing so involve an ideal subject that can satisfy the demands of repayment on time (Adkins, 2017). I mention this here because, when backed by the state, loan-based solutions often bring about increased forms of state intervention to increase debt repayment (Langley, 2009). As a result, I suggest that studying student loans as part of market relations, must include how future obligations may come to be determined as problematic to reveal the moment student loan debt becomes a problem for the government.

To situate future problems in relation to existing accounts within markets for collective concerns, I discuss problematisation with contemporary strands of literature in the philosophy of science, as it elucidates how time comes to matter for a study of the problematic. In this respect, the inclusion of problems as a way of governing (Frankel et al., 2019; Jenle & Pallesen, 2017; Ossandón & Ureta, 2019), can also be viewed in terms of organising futures to instigate desired change (Schrickel, 2020). The following then will discuss the temporal as part of the problem-solution relationship, recasting Callon's proposition that problematisation refers to a relation between actors which seek to 'become indispensable to other actors in the drama by defining the nature and the problems of the latter' (Callon, 1984, p. 196). As raised above, such a view signifies a tight coupling of the problem and solution duo, in which actors propose obligatory courses of action through which problems are said to be resolved. However, I would like to suggest that what problems are taken to mean, in the sense of, the very conception of problems helps explain their political function in this world, alluding to the temporal nature of the problem-solution relationship.

Working on a historical account of epistemic design in 1970s France, Isabell Schrickel provides a lens through which to understand the temporality of problems. In her account she demonstrates the process through which institutions and forms of knowledge had been constructed around problematisation to instigate societal change into a shared future (Schrickel, 2020). Importantly, what I take from her account is noting how different conceptions of problems, organise societies and individuals in accordance to varying temporalities. To give an example, positivist and post-positivist conceptions of science had developed different conceptions of problems and their relations to time. In one account, problems are temporal because they demand action that is delimited by the timespan needed to find a solution. But in a different, they are posed against an uncertain future, in which instigating change in the present is utilised as a measure of control.

The point here is that paying attention to different conceptions of problems, or rather solutions, points to distinct temporal interventions that problematisation engenders. In a similar way to work in social studies of markets discussed above, the construction of problems, implies how they politically function in this world. As an example, Schrickel demonstrates the use of problems as means for societies to mark out a present against a specified and desired future:

In many cases the ambition to construct problems in order to leverage systems into a different state became apparent. In that sense, problematisations provided an epistemic design that could be used to engage with the question of the future development of modern societies, a procedure that allowed the gathering and arranging of data, modelling issues, defining their aspects and boundaries, and deriving options for action. (Schrickel, 2020, p. 52)

As the above demonstrates, socio-material infrastructures emerge in relation to defining what problems are and how societies should deal with the question of the future. In this example, problems are revealed as instrumental, drawing attention to the practices that are initiated in the present to achieve goals in the future.

To quickly summarise, studying the obligations of debt in terms of problems requires an analytical perspective that takes account of who problematises, what constitutes a problem as well as which solutions are proposed. Yet crucially, because it is a study of student loan debt, the temporality of problems, namely that of future repayment is useful as it reveals obligations as constituting a future problem and how debtors become organised in

response. The problematic then should not only be studied in terms of ideal market forms, but ideal debtors that are arranged against a future promise to repay that may pose a problem.

To this I would like to add a final point to better understand the implications of studying debt as an accountability device in relation to time. As alluded to above, problems often reveal political and power relations as a result of struggles to define what is problematic (Callon, 1980). However, which publics are defined as problematic is just as politically contentious and carries the ability of pointing to the power relations that actors hold over one another. An excellent example of this distinction is found in the work of Gilles Deleuze (1994), which Schrickel (2020) applies to provoke understanding of how problems are utilised. In this respect, problems may be understood in terms of their productive character allowing an intrinsic evolution of situations. Namely, it is a situation where the problem is not tightly coupled to a solution allowing instead for a truly transformative experience for the subject. In contrast, an instrumental application of problems, one that is necessarily tied to its solution, is of relevance here because it helps recognise the use of problems as means of exerting control. In this respect, problematisations that are determined in relation to something external, allows the implementation of pre-defined measures and solutions. To borrow from Deleuze: 'the solution necessarily follows from the complete conditions under which the problem is determined as a problem, from the means and the terms which are employed in order to pose it' (Deleuze, 1994, p. 159). In this sense there is a risk of remaining 'slaves so long as we do not control the problems themselves, so long as we do not possess a right to the problems, to a participation in and management of the problems' (Deleuze, 1994, p. 158). For the analysis, it raises the question of whether debt can offer the possibility for contestation so long as problems are incessantly reworked, tying debtors today to temporalities in the future.

In summary, incorporating problematisation as a conceptual framework has been explained as an analytical orientation. Mainly, one that takes account of the ways actors problematise certain issues that are handled through markets (Callon, 1980, 1984). It challenges the assumption that problems simply exist within markets, and instead points to the political work of market actors in framing and distributing solutions (Marres, 2011; Neyland & Milyaeva, 2016; Ossandón & Ureta, 2019). Crucially, what I have sought to point to are the

temporal relations that permeate the problem-solution duo. While accountability devices distribute obligations for participating in the market, pointing to the potential ways market-like relations may not unfold in practice (Neyland et al., 2019b). For a study of student loan debt, obligations should also be understood in relation to time (Adkins, 2017).

Because debt obligations carry no guarantee they will be repaid requiring consideration of how failure to meet repayment is dealt with in the HE market. This is particularly prominent because student loans form both public and private debt. In this respect, I have drawn together problematisation with the temporality of problems, to demonstrate how problems can be used instrumentally to mark out issues in future obligations (Schrickel, 2020). Often, it is the very conceptualisation of problems that reveals their application within a situation, pointing to the future as a means for recalibrating societies towards a set goal. In this respect, who problematises becomes just as important as who is problematic, and how the future is used as means for orienting subjects towards specific solutions. This understanding of the problem-solution duo has revealed an aspect of control problems hold over subjects (Deleuze, 1994). Signifying future problems of indebtedness can also be understood in terms of means for exerting control.

Conclusion: Towards a study of student loan debt

In concluding this chapter, I want to return to the theoretical and empirical assumptions I sought to respond to, namely engaging with student loan indebtedness in a manner that incorporates the specific concept of the market. This I claim is crucial because student loans have been implemented to distribute public resources through market forms (Molesworth, 2010), necessitating better understanding of student loans in relation to the market. In this context, I have demonstrated how student loan debt does not easily separate into private and public forms of debt, requiring an approach that reflects this blurring in terms of the state and market. What I have proposed is placing this object of study within a strand of literature broadly termed 'the social studies of markets', that sits at the intersection of STS and economic sociology. In understanding the market as outcomes of organisation it draws attention to the processes and expertise that form markets as particular arrangements (Callon & Muniesa, 2005b; Frankel et al., 2019; Muniesa et al., 2007; Neyland et al., 2019b; Nik-Khah & Mirowski, 2019). With this literature I have highlighted three points of contact that inform the analysis: markets for collective concerns, accountability devices and

problematisation. The discussion has also sought to draw out further what a study of student loan debt requires when analysed with the social studies of markets. This has been achieved in order to pave the way for the contribution this thesis makes. In this respect, the chapter has argued that there are significant opportunities for studying accountability devices of debt in terms of their temporalities as a means for furthering understanding of problematisation within markets for collective concerns.

In this context, these strands of literature carry important points for the analysis paramount to the study of student loan debt and indebtedness in the HE market. The first, markets for collective concern is suitable here because it provides a frame for analysing markets, that are also policy instruments governed by the state (Frankel et al., 2019). By emphasising the concept of the market that is mobilised by experts in a given field, the ways in which markets become organised sheds light on the politics of the market. For the analysis it means drawing out the particular forms the market has been organised to take, as well as paying attention to the ways experts evaluate and repair market failure. Second, in incorporating an STS approach to the market, specifically accountability devices (Neyland et al., 2019b) affords a view of the political and economic relations that market participants are entangled with. A central aspect of this literature is the problems that may arise when market-based interventions do not actualise as anticipated. This brings the chapter to its final and third point. One of the main concepts in this literature is problematisation (Callon, 1980). It not only provides an analytical turning point which delimits the role of the social scientist to following how other actors problematise. But also, it is primarily a political relationship. Who problematises is just as important as what comes to be defined as problematic. As I have suggested, it ties both strands of literature because problems permeate both expertise (Ossandón & Ureta, 2019) as well as devices (Marres, 2011). Finally, the chapter has also focused on the temporality of problems to account for the temporal obligations student loan debt holds, for both students and the public. It has argued that while accountability devices are useful for explaining the distribution of responsibility in markets for collective concern, there is place for seeing obligation also in terms of temporalities. Such temporalities offer useful pointers towards the connections between debtors and publics in such markets, because of the particular type of debt student loans form. This includes processes of control that may point to how specific problems come to permeate markets, but also when tied to solutions, carry the ability to utilise future as means for exerting control (Deleuze, 1994; Schrickel, 2020).

With these insights in mind, the following chapter proceeds by presenting the methodological tools required by the study of student loan debt. It provides a brief overview of how the research was conducted, as well as pointing to the issues and challenges that may arise from this study.

Methodology

Tracing market making processes

Introduction

This chapter sets out in detail the methodological practice of studying student loan debt in the HE market. In doing so it responds to the three main analytical tools that this thesis engages with: markets for collective concerns, accountability devices and problematisation (Callon, 1980; Frankel et al., 2019; Neyland et al., 2019b). I developed an approach to studying market organisation through expertise alongside the socio-technical relations that debt as a device forms. This includes engaging with the market as a policy instrument that is evaluated and assessed in order to arrive at the type of market organised. In part this includes noting the calculative infrastructure of the ICR loans, because it offers a lens into the potential influence of the loans to market evaluations. In particular, it requires a method of research that is able to account for the obligations of debt, that may demonstrate the entanglement of market participants in relations of debt.

A qualitative, document analysis had been chosen as it is best able to fulfil the requirements of the inquiry. This includes collating an expansive array of documents that had been published by key consequential actors, to reveal 'the practices, objects, rules, knowledge, and organisational forms that produced them' (Shankar, Hakken, & Østerlund, 2017, p. 62). The study further required a determinant criterion for 'expertise' in the HE market, which had been established in relation to the aims of the thesis. As such, the analysis explores the design of the market and subsequent problems that had been raised as made evident in government and non-government reports published surrounding the 2010 reforms. Emphasis is placed on the application of expert knowledge established especially in relation to student loan debt. In this context, market making is analysed from a governance perspective with both primary data from government and non-government sources included, as well as drawing critically on secondary literature that had engaged with the changes and reforms introduced.

The chapter focuses on the empirical objects within the social studies of markets literature that this thesis draws on, in order to demonstrate the applicability of documents as tools for research. I explore how market making has been studied within economic sociology, and

what methodological considerations can be applied here. Specifically, this strand of literature places emphasis on technical expertise as central to market making, and the knowledge applied to evaluate the efficacy of market arrangements. Documents then are suitable research tools to study the application of expert knowledge as they make visible the design and assessment of markets. In this respect, the calculative practices of loans are also made visible through documents. However, studying the ICR loans as an accountability device through documents may require some justification for their feasibility as research tools. Within STS work 'devices' are empirical objects that are generally studied ethnographically, emphasising the materiality of markets as products of its design. In the aim of marking out the advantages for centring the research practice around documents, I draw out their empirical capabilities to respond to the demands of market devices as a research object. In this respect, I also voice some of the limitations. Finally, I lay out the research design, providing greater detail into the sources used within the analysis, as well as the practice of collating the documents. The thematic approach to analysing the data is discussed as well as the key literatures.

This approach to studying the HE market is applied in the two subsequent chapters. The choice for splitting the analysis in two is not coincidental but deliberative. It first seeks to mark out government rationale for implementing the reforms, and second notes the outcome and subsequent problems that arise. By foregrounding problematisation as an analytical orientation to the study, a 'second order' (Pottage et al., 2014) approach is taken which follows the ways experts problematise a certain issue in the past (see also Callon, 1980; Ossandón & Ureta, 2019). More importantly, it mirrors the empirical orientation in work that studies 'markets for collective concern' (Frankel et al., 2019) as well as this thesis' own emphasis to demonstrate the failure of the market or 'messiness of outcomes' as a central aspect of the analysis. This is primarily designed to provide readers with an account of policymaking as the assessment and repair work of market failure. This is achieved in relation to student loan debt.

A study of student loan debt and market expertise

This thesis began with a desire to investigate the means by which market mechanisms in HE have been organised around student loan debt, as a particular arrangement. Mainly because as I have shown, marketisation of HE has been more generally studied in terms of

its corroding effects on HE, precipitated by a shift towards private fees (Holmwood, 2014; Molesworth, 2010). However, the complex relations of debt student loans produce are not always straightforward, reflecting a blurring of the divide often attributed to the state and market. Instead, necessitating an approach that is able to account for debt obligations as part of market relations. I deploy social studies of markets literature because it places emphasis on the forms of expertise and calculative practices that market mechanisms require to achieve their effects (Frankel et al., 2019; Neyland et al., 2019b). The methodological tools that have been applied in this work are often varied, emphasising either the devices that entangle participants in market relations, or the organisational practice of markets in relation to the state. The following marks out those studies that have continued relevance for fulfilling the empirical aims of this thesis.

A central aim of this study is to make sense of the specific infrastructures of student loans, and the particular market arrangements for distributing funding the reforms had been organised to produce. While Sarah Hall's (2015) work on the geographies of marketisation focuses on the spatiality of the HE market, I mention it here because it demonstrates how the market as process has been brought about through fees. It is an ANT inspired approach which understands the market as a socio-technical arrangement, thereby placing emphasis on how markets are 'created, reproduced and challenged' (ibid., p. 452) through market devices. What I take from her analysis is an empirical approach to the study of market making, which first seeks to mark out government rationale for implementing fee changes, and second notes the effects this carries on a changing graduate labour market. In separating the assumptions anticipated by the actors from the outcome, not only allows to demonstrate the potential 'messiness of outcomes' that this thesis is concerned with, but how it has been dealt with in practice. With this I am referring to the potential problems that may arise and how they are dealt with. Indeed, drawing attention to the organisational practices that are involved in HE market making, or what is referred to as the 'design stage', enables the centrality of market devices in prefiguring relations to come to the fore.

Rather than providing a refined definition to what the HE market is, the purpose here is to account for whether the HE market has been organised and evaluated as a policy instrument. In this respect, the thesis draws inspiration from the social studies of markets literature, which places emphasis on the technical knowledge experts mobilise as a resource

that plays a role in the structuring of markets (Jenle & Pallesen, 2017). As will be discussed further below, knowledge established as part of market formation processes does not simply play a representational role but 'the theory [of the efficient, self-regulating market] is explicitly built into the rules of actual markets' (Breslau, 2013, p. 831).

The application of expert knowledge to the design of the market then has been significant for this thesis because it offered a lens into the potential influence of the loans to market evaluations. The process of documenting expertise has been achieved with two key concerns in mind. Noting the problems that had emerged and the particular knowledge mobilised. In this respect, the deployment of markets for collective concern as an object of study invokes a unique type of terrain because it does not assume a set, predefined concept of the market, and instead examines the ways market formation occurs in practice. Both Ossandón and Ureta's (2019) work on the health care public transport areas in Chile, and Jenle and Pallesen's (2017) study on the Danish electricity markets have been influential here. From the former, a focus on past problematisations is very telling and of specific relevance in terms of governance. Mainly because Ossandón and Ureta have also relied on archival material to trace the ways actors problematise as an object of inquiry. This 'second order' (see Pottage et al., 2014) approach to problems places the social researcher as an observer of experts who problematise a given issue. I borrow from them a useful connection that follows framing a particular issue as problematic and noting the ideal concept the market is supposed to attain. Hence a focus on the problems that indebtedness poses for the HE market, is a methodological orientation that is vital to understanding the market relations student loan debt had been set up to prefigure, as well as investigating whether or not these assumptions have achieved their effects. In a similar way, the latter work follows the design of the market to note the particular form of expertise mobilised towards resolving specified societal problems (Jenle & Pallesen, 2017). For this thesis, considering the aims of market design and the inclusion of market participants, fulfils the aim of the thesis to approach the ways debtors become intertwined within the framework of the market.

In this respect, it is not only the specific market mechanisms that I want to draw attention to but also the relations of debt that student loans are responsible for, as means for engaging with the implications indebtedness holds for subjects. A central approach to

studying debt obligations is foregrounding their temporal relations, noting both how schedules of repayment are calculated as well as specifying the contractual terms of the loans (Adkins, 2017; Guyer, 2012). It is also this methodological approach to debt that has informed Miranda Joseph's epic *Debt to society: Accounting for life under capitalism* in which she explores social relations that are the result of different modes of accounting for debt (Joseph, 2014). In relevance to this thesis, Joseph studies accounting practices which include calculative statements such as statistics that are used for management, budgets, and performance metrics. But also a qualitative take on 'debt to society' that is dependent on certain framings of the subject. It is this dual empirical approach that is of interest here because it offers rich descriptive opportunities into how indebtedness forms power and moral relations, as well as shedding light into how repayment is calculated and operationalised. A central aim of this thesis is bridging the gap between accountability devices in terms of the obligations they entangle subjects in, with how indebtedness forms a distinct temporal obligation that can be problematised.

While Miranda Joseph's study has been proven effective for pointing to the calculative practices of debt, in taking debt as a constitutive relation that is more generally placed in a socio-historical field (Adkins, 2016), does not account for the specific forms of student loan indebtedness that are of interest here. I mention this specifically because, in STS inspired work that has studied indebtedness as a market device, there is a tendency to focus on the lived experience of debt. Here of course I am referring to Joe Deville's (2015) important work on consumer credit and debt collection, which talks of indebtedness in terms of market attachment. This is achieved by drawing on methodological tools such as ethnography or interviews, orienting the analysis towards 'corporeal materialities' (McFall, 2009, p. 53) that are able to explain the affective relationships that credit cards as market devices form between debtors and creditors in the market. However, Deville's interpretation of indebtedness and the market is different from that of this study. Not only because the introduction of student loan debt solutions had been more or less imposed on a public, rather than 'affectively attached', but also because as repeatedly pointed to throughout this thesis, student loan debt does not neatly divide into public and private

¹⁰ Here she provides the example of accounting for the debt criminals must pay to society through incarceration (Joseph, 2014, p. 47).

debt. Indeed, emphasis here is paid to understanding indebtedness in terms of the relations it forms from a perspective of the state, and market formation. It requires a different approach to studying debt as an accountability device, one that is able to reveal both calculative practices as well as forms of indebtedness. The following section will outline the approach taken here, with the aim of responding to the specific requirements of this study. In summary, this section has sought to apply the theoretical framework of this thesis to a methodology, by drawing on studies that have each demonstrated some analytic advantage for positioning this thesis within the social studies of market field. A common measure has been to take a two-step approach, which draws attention to the possibility that market reforms may not achieve their desired effects, thereby seemingly requiring evaluation and repair (Hall, 2015; Neyland et al., 2019b). This not only offers the opportunity to engage with market organisation, namely, the implementation and evaluation of the market on concepts implemented at the time of the reforms. But also, the assumptions of market relations student loan debt has been organised to produce, revealing the obligations market participants had been expected to take. Doing so must be achieved in conjunction with the particular infrastructure of student loans, and the forms of indebtedness they produce. Turning attention towards the qualitative and quantitative expressions debt takes in the market (Joseph, 2014), makes clear the temporal obligations indebtedness prefigures. Finally, it is clear that applying document analysis as a method for the study of student loan debt may require some justification, especially because STS inspired approaches to indebtedness, appear to identify ethnography or interviews as offering an advantageous lens into the affective, lived experience market devices are responsible for (Deville, 2015). Indeed, STS inspired work often approach documents with some apprehension. In what follows I offer a detailed rationale on how documents are employed, their limitations and

A methodological approach: Documenting knowledge

what they afford for this thesis.

Documents are ubiquitous artefacts¹¹ that can refer to 'bus tickets to courtroom transcripts, employment applications to temple donation records, election ballots to archived letters'

¹¹ The use of artefact draws on Marilyn Strathern's (1988, 1990) notion of the artefact, as a found object in the world (Riles, 2006, p. 17). It is a middle ground for working through others' analytical concerns, because it

(Riles, 2006, p. 5). However, because this analysis takes a governmental perspective to market making, I refer to the production of documents within organised and institutional frameworks in which 'forms of knowledge are structured by documentary forms' (Riles, 2006, p. 10). Primarily, documents *document* bureaucratic practices of the state. More generally, as a principal instrument of knowledge making, the document also comes to acquire an instrumental purpose, specifying how this knowledge is to function in the world (Megill, 1997). It is this dual characteristic of documents that deem them appropriate methodological tools for this thesis. As I will go on to argue, documents offer a means to engage with expertise that has come to organise the HE market, alongside the contractual relations of debt that market participants are prefigured around. This is not to suggest documents' impermeability as research tools, of course there are some limitations to utilising document analysis as a single research method. However, these issues are not insurmountable for this present study, because of the particular approach taken that foregrounds an institutional perspective to market making and accountability devices.

Within STS-inspired research documents are often viewed with some disdain (Latour, 1988), or applied in conjunction with another complementary method, implying that the data offered may be insufficient or holding a potential bias (Bowen, 2009). This seems to be the result of assertions that view documents as banal, mundane or even neutral objects, attributing further to their 'analytical invisibility', mainly because of their ordinariness (Brenneis, 2006, p. 42). Hull (2012) adds to this claim, asserting that this is not only a problem within academic research, but is often the result of bureaucrats' own views of documenting practices. Further, textual analyses are said to lack the capabilities of offering an account of the 'complex material and semiotic entanglements' that inhibit practices (Savransky, 2014, p. 103). In contrast, to study market devices as an empirical object, this thesis sees documents as holding such capabilities, not only as discursive, epistemic artefacts, but also ontological. In this respect, the statistical documents that have been examined which reveal the calculative practices of the loans are not only descriptive, but at the time of publication, they had been used to inform the evaluation of the market. The document is therefore utilised here as both a tool that can make visible the application of

attends to the world through their knowledge practices, often decentring the researcher's own epistemological commitments to knowledge.

expert knowledge, as well as revealing its use as an instructive tool for how policy evaluations should be treated in practice.

To draw this idea out further, I would like to lay out the epistemological and ontological orientation of this study. For, despite the bifurcation of these terms in Western philosophy, I wish to offer a reading of documents as onto-political entities that take part in worlds through both social and technical practices (Mol, 2013; Savransky, 2012; Stengers, 2008). To study the making of the HE market through documents, this view affords the opportunities for researching the market as a particular arrangement, but also gives emphasis to the problems that may arise. I claim this mainly because documents can share some performative capabilities that are attributed to the study of market devices. This view recognises that economic knowledge is made by tools designed to study it (Callon, 1998a). It seems unusual for a study of market devices not to take into account documents because they are the primary tools used to document practices of economic knowledge making.

When considering the analytical capabilities of documents, they are often understood as representations, studied as standalone objects where the content of the document is separate to its producer (Bowen, 2009). Yet, as Prior (2004) exemplifies, the encyclopaedia has been written with the aim of providing a 'map of available "knowledge", the manner in which the knowledge is organised and arranged 'impose[s] an encyclopaedic order on the world' (pg. 77). In other words, documentary practices such as these offer insights onto the ways documents may become ordering devices, as they both create a relationship between concepts, and reveal the associations made. It is precisely such capabilities that are of relevance to this study because it aims to mark out practices of market making and organisation, as employed by experts in the past. As such, the analysis which this thesis has taken investigates the knowledge experts have produced to evaluate and repair the market. This approach is useful as it recognises the framing of problems against an ideal market form that market is expected to take.

It is an ontological approach to documents that has been influenced by Annemarie Mol's (2013) onto-politics. Put simply, onto-politics highlights the ways knowledge is formed around a specific object of study, later to be materialised into different ways of practicing such knowledge. Importantly, Mol contests the idea that there is one way of knowing an object, pointing instead to the multiple ways objects are represented in knowledge

practices. In doing so she shifts the question from the ability to know an object of study as given information, to the topic, concerns and questions these knowledge practices persist of (Mol, 2014). Thus, Mol's onto-politics heavily relates to 'matters of concern' previously addressed in this thesis, which helps distinguish both the knowledge and its material shaping in reality as political. It becomes a useful approach to note which knowledge claims are highlighted, singled out over others, framed and shaped as outcomes of specific concerns (Mol, 1999).

In this respect, onto-politics is used to inform document analysis because it offers a framework within to study market making practices as a reflection of the particular form of student loan debt. Through this approach, documents are applied as research tools because they make visible the calculative practices of debt that have been incorporated into the very knowledge used to inform, the evaluation and assessment of the HE market. It is in pointing to contractual and calculative practices of the loans that reveals not only the ideal form of the market, but the subject of debt. As Mol points out, the shape of practices is contextual, what for example is a student and how should HE be governed receives its shape in accordance with the organisational model at hand. In this respect, documents give voice to expertise, revealing the ways appropriate rules and regulations receive their shape. In the complex context of the HE sector documents produce knowledge on how to assess the effectiveness of the market, how it should be evaluated and what problems are anticipated.

Providing further justification for utilising documents as tools of analysis in this study, relates to this thesis' concern with state-market relations. Documents have been applied because they carry important bureaucratic roles within organisations. It is their role as transparent tools of policymaking (Riles, 2006) which designates them as central instruments to an analysis of the market as a policy instrument. As Dorothy Smith explains 'the formality, the designed, planned and *organised* character of formal organisations depends heavily on documentary practices, which co-ordinate, order, provide continuity, monitor and organise relations between different segments and phases of organisational courses of action' (1984, p. 66). Accordingly, using document analysis as a research method focuses on the specific policies that have been implemented and importantly, noting the ways concerns are articulated. As I have suggested elsewhere, a crucial part of studying the implementation of market mechanisms is pointing to the 'messiness of outcomes' or rather

making sense of the problems that arise and how they have been dealt with (Neyland et al., 2019b). Doing so affords a view into the mode of governing present because markets for collective concern are implemented to achieve government goals.

While I have discussed to some extent the advantages document analysis poses to this thesis as a research method, it is a method that must be approached with some caution especially when studying debt as part of state and market relations. The first, relates to the aim of the thesis to mark out the obligations student loan debt distributes, as an accountability device. In this context, accounting for market participants through documents, specifically students as debtors, may raise analytical resemblance to a strand of literature that is mostly occupied with the production of subjectivity. I am referring to work in Governmentality Studies (GS), which in seeking to mark out the effects of political operations of power, do away with subject agency by claiming instead that humans simply flive their lives in a constant movement across different practices that subjectify them in different ways' (Rose, 1998, p. 35). I mention this here in reference to the discussion raised in Chapter One, where Foucauldian and Marxist inspired literature within political economy studies of debt has often related indebtedness to a specific mode of subjectivity, namely a rational, disciplined subject (Langley, 2009; Soederberg, 2014b). It is here that I part from such renderings of the subject-in-debt, as it is beyond the aims of this thesis to explain or rationalise subject behaviour in any way. Instead, taking a governmental lens to study market making enables to reveal different ways debtors are integrated as part of market relations, specifically in terms of the obligation of debt and the ways failure to meet obligations are handled in practice.

Document analysis as a research method does however hold some limitations. Despite the central role documents carry as tools for creating public accountability (Sarat & Scheingold, 2001), it is crucial to recognise the partiality of their information. Namely, given the instrumental character of documents, often what is made available does not reveal the entirety of deliberations or operations that have taken place. This point is especially relevant for a study of the past, which cannot account for intentionality. One possible way to reconcile such limitations, is to take account of the type of document, which becomes at least as important as its content. It is a methodological approach close to that of Reed, who calls attention to the 'aesthetic dimension of the document, its status as an artifact and the

actions of its design' (Reed, 2006, p. 163). In other words, noting the type of document – whether a consultation, statistic or government paper, reveals the specific aim with which it has been published and how it had been created. In this respect, tracing market making through documentary forms has become an 'orienting analytical procedure' (p. 163) in the sense that it invites thinking and recognising the necessity of which these documents respond and fulfil.

Documents afford the analysis a view of past, organisational practices, revealing the ways policymaking has been documented. Here document analysis is a useful approach to studying practices of market making in HE, as an arrangement that is organised around student loan debt. In this context, I have argued for a study of documents in recognition of their dual form. First they document knowledge making (Riles, 2006), enabling a lens into the bureaucratic practices of the state. And second, documents come to hold instrumental value, specifying how such knowledge is to function in the world (Megill, 1997). It is this dual role that has informed the analysis, where the market has been studied as an outcome of the work of experts mobilising knowledge. This methodology's orientation to a study that utilises documents has been influenced by Annemarie Mol's (1999) 'onto-politics'. The main point taken from Mol is contesting the univocality of knowledge, and objects, in terms of how knowledge comes to be practiced. In this respect, following Mol's ontopolitics necessitates noting the appropriate outcomes market design comes to hold, yet more crucially the ways in which the calculative techniques of the loans come to inform market evaluation. Doing so offers a contextual approach to governing the HE sector as a market and the configuration of debtors under this specific arrangement. The following and final section, I provide a detailed account of how document analysis was conducted, noting in particular the approach to gathering and analysing the data.

Researching market making around student loan debt

In seeking to research the organisation of the market around student loan debt, I engaged in an exploratory study that traced policy reforms, legislative changes, ICR loan statistics and calculations. The research focused on expertise as means to design, assess and evaluate the market informed by the calculative practice of student loans. I paid close attention to the infrastructure that had been implemented to address issues that had emerged as a result of the design of the market. Specifically, I considered different conceptualisations of the

market that HE had been organised against, as well as the ways concerns had been articulated and managed. Part and parcel of this approach was tracking policy changes, subsequent reforms and changing loan terms, noting the effects these carry for market actors. Undertaking document analysis as a method of research revealed what is often latent in HE policy studies, a coherent account of student loan debt in terms of its calculative practices, alongside a clear understanding of the HE market as an organised entity.

Document selection is a process that started with sourcing documents that could be deemed relevant for the analysis. In this respect, to account for the organisation of the HE market from the government I drew on the Department for Business Innovation and Skills (BIS). Recently arranged into the Department for Business, Energy & Industrial Strategy (BEIS), part of its responsibilities is overseeing HE in England, mainly allocating (what is left) of the funding granted by the Treasury. Its mission statement: 'working with further and higher education providers to give students the skills they need to compete in a global employment market' (Department for Business Energy Innovation and Skills, n.d.). Put simply, this department oversees the various bodies aggregated under HE, such as regulatory bodies. It publishes policy papers and consultations, alongside government funded research to provide guidance for those defined as 'stakeholders' to the HE market.

The coordination of financial activities and administration of the loans is placed under the Student Loans Company (SLC). Established in 1998 with the implementation of the first mortgage-style loans, the SLC is a non-departmental public body that is wholly owned by the UK government. It is the main body responsible for providing and collecting student loans in the UK, and as such operates separately in each of the devolved administrations. While the SLC oversees repayments, it is in fact the HMRC that is responsible for collecting repayments through the tax system. Interestingly enough, while the SLC self describes as the mediating body between the government, students, and universities in effect loans for tuition fees are directly paid to universities, rather than provided directly to students. Finally, the SLC aggregates and publishes yearly statistics on all matters concerning the ICR loans, including maintaining the balance sheet.

As mentioned above, a further market actor that is responsible for allocating funding for teaching and research to universities in England is the Higher Education Funding Council for

England (HEFCE). Of interest here however, is the regulatory role that it fulfilled, a result of the removal of grant funding in 2012. In effect, HEFCE was merged with the Office for Fair Access (OFFA) to become the Office for Students (OfS). The OfS acts at arm's length to the government, defining quality standards independent of government interference and is regularly updated to reflect both recent changes in funding and the growing diversity of the HE sector. As will be discussed further on, the OfS was created following a release of student loans repayment data, predicting that 73% of graduates are unlikely to repay in full, compared with 32% under the old system (Crawford & Jin, 2014). In response, the government proposed a reversal in its regulatory agenda, concluding that an increase in regulation is needed in order to implement the goals for HE - actualised as the OfS: 'There is a need for a simple, less bureaucratic and less expensive system of regulation, that explicitly champions the student, employer and taxpayer interest in ensuring value for their investment in higher education' (Department for Business Innovation and Skills, 2015b, p. 3).

If the actors above account for various government practices of market making, the following had been included as they engage with government policy often releasing consultations and reports that carry impact on policy making. The Institute for Fiscal Studies (IFS), an independent microeconomic research institute (think tank) seeking to inform and widen the public debate on economics to develop what they term as effective fiscal policy (Institute for Fiscal Studies, n.d.). They inform this study through the reports, research papers and briefing notes published on loan repayment, subject choice and the various impact of HE degrees. Put differently, the documents the IFS publishes are intended as self-explicating devices, in the sense that they explicitly define how they are to be understood and therefore used (Harper, 1998). These are crucial not only by making government accounting practices transparent, but they articulate concerns of the HE funding system in economic terms.

Finally, the following actors included in the analysis self-define as the representative organisation for the UK's universities (UUK). Yet in consisting of university Vice Chancellors, the majority of which are male professors and senior administrators (Evans, 2004), bringing to question the organisation's ability to raise issues of concern that reflect the university as a diverse community of scholars and students. It is in fact an organisation that represents

vice-chancellors (previously known as the Committee of Vice-Chancellors and Principals).

This discrepancy is especially important as UUK have tasked themselves with supporting and promoting the work and interests of universities, conversing with policymakers through research publications that respond to changes in the sector.

As this study is concerned with the HE market and its intersection with state funding, incorporating policy documents was integral to understanding how changes in policies were conducted and the form of market relations market actors had been expected to take. As a central source, the government department responsible for English higher education is the Department for Business, Innovation and Skills (BIS). In this respect, I began searching for documents online mainly through government websites (.gov), as these are always made readily available to the public. To account for the loans, I incorporated the student loans provider: Student Loans Company (SLC) as well as the Higher Education Funding Council for England (HEFCE), who from distributing grant funding became the market regulator, later replaced, and referenced here as the Office for Students (OfS). These provided useful starting points which were also complemented by secondary literature as they revealed further market actors who would become relevant for the analysis. Indeed, the Institute for Fiscal Studies (IFS), a UK based think-tank, and Universities UK (UUK), an interest-based organisation which often publishes consultations and produces modelling surrounding any policy reforms.

The analysis has not been carried out in a linear way, instead, the analysis can be described as an iterative process as it required constant re-consideration of the material. The initial strategy to procure documents was oriented around student loans in the broad sense of the word, meaning documents that had either referenced or financially tracked debt qualitatively or quantitatively. This of course produced a challenge in itself owing to the overwhelming amount of documents available – over 200 - meaning choices over which documents to include and exclude had to be made. In other words, I needed to establish a criterion of relevance. This was useful not only on a practical level, but it allowed a refinement to the focus of the research which became the contours of the study. In effect, the criteria over which documents to include in the study became a pronouncement of *problems* in the market as an account of student loan debt.

In effect, the aim had been to account for the decade of marketisation processes, spanning from 2010 to 2020 (the last available reports at the time). The first point to note is that all documents are policy documents, in that they are structured in a specific way that adheres to a more general formulation of formal organisational practices (Harper, 1998). It speaks to the background knowledge needed of both writers and readers (Shankar et al., 2017), yet also alludes to the ability of documents to form exclusionary practices. For the inquiry, it had meant that I learn the very specific discourse utilised in order to examine the organisational complexes (D. E. Smith, 2005) these documents produce. Some documents had been explicitly formulated with a more general audience in mind, or rather inviting involvement and consultation from voices that are normally peripheral, yet often discussed.

The style of analysis undertaken can be described as both content analysis and thematic analysis. The former term is used by Bowen (2009) to refer to the process of organising information into groups or categories in relation to the central research themes. In this respect, the expert knowledge mobilised to inform policymaking as well as the role of the loans in the market became categories for organising the documents. These had been procured by reviewing the documents and identifying relevant and meaningful passages of text. The latter term, thematic analysis refers to recognising emerging themes that become categories for analysis (ibid. 2009). To achieve this, re-reading both the main primary sources and my very own documentation of it in a much more meaningful and careful manner. This was done to detect emerging themes which would later turn into the categories for analysis (Fereday & Muir-Cochrane, 2006). The public and private demarcation of the loans, as well as issues that had been identified with the current market arrangement had become central constitutive themes. As with any research methodology, there has been much elimination and removal of unnecessary data that as a result, has meant I am able to present one account out of the many possible. Importantly, the analysis had been complemented with secondary literature that takes the issues expressed in the policy documents used.

This in turn produced a point of departure where decision over how to continue the analysis was required. How problems are framed against ideal market forms, raised the question of what is taken to mean by expertise, or rather which forms of knowledge are adopted in HE market making. As previously raised, economic knowledge is often foregrounded in social

studies of markets literature because markets are understood as calculative spaces (Mackenzie., Muniesa, & Siu, 2007). However, within markets for collective concern, especially in relation to accountability devices, both the normative and economic terms of the market are considered (Neyland et al., 2019b). The importance of accounting for technical expertise is made especially by Jenle and Pallesen (2017) who suggest that different market arrangements are the outcome of different forms of expertise. For the analysis, choice needed to be made over which institutional actors are integral to market making built around student loan debt. In respect to the former, the meaning of expertise was very much informed by their relation to the practices of market organisation. It is by no means a reflection of the population of people who may call themselves experts in the HE market, but instead references their position and acts as a signal of specialised insights. While I began the work including only governmental bodies, it was in analysing the material that made clear the importance of accounting for non-governmental bodies that had come to evaluate and assess the efficacy of the reforms more generally, and student loan debt specifically.

An outcome of the thematic analysis had been a secondary account used as a summary of observations of the data themselves. Within it, a rich description of market organisation in which I made direct observations of the use of documents, matters of concern expressed, the problems or solutions articulated, and the actors called into question. Specifically paying attention to considerations such as the original purpose of the document, its target audience, the context it was written, and whether or not the document is complete or not (Bowen, 2009). It was in itself part of the requirements of qualitative research, and document analysis specifically, which entailed documenting the research procedure and the organisation of material (ibid.). However, such a rich description had required further organisation, which entailed identifying information that is relevant and irrelevant for the analysis.

As the following table (see Table. 1) outlines, included within the analysis are policy papers, consultations, regulatory frameworks and statistical analyses as technical documents. Yet also non-technical documents such as reports, or correspondences were included. Each with their very own structure and methods of conveying, storing and producing knowledge. Secondly, the expertise composing the documents are broadly divided into two sections:

government departments and independent research institutes. To note, this is in no way reflective of the view that such a demarcation is due to a hierarchy or order, but instead a necessary move to explicate the various concerns each of the bodies or departments formally states.

Table 1: Documents and sources included in the analysis

Reviews (3)

Government
Papers (6)

Department for

Business

Innovation and

Skills

These include:

Policy papers and consultations (11),

Research reports

(4) and Graphs and

statistics (6)

Office for

Students

These include:

Reports (2)

Strategy papers and analyses (2)

Student Loans

Company

Statistics

Publication

(11)

IFS

These include:

Reports (5),

research papers (3)

and briefing notes

(3)

Universities UK

These include:

Report (2),

Assessments (2),

Reviews,

consultations and

responses (5)

To study the organisation of a market around student loan debt from a governance perspective, the various types of expertise that are central to market making processes in HE had been included. Both governmental and non-governmental actors comprehensively take part in mobilising particular forms of knowledge that are made visible in policy documents. The content and thematic analysis undertaken as part of analysing documents reveals the main themes that guide the following analysis chapters. The public and private demarcation of the loans, as well as issues that had been identified with the current market arrangement are central because they draw attention to the evaluative work of experts. Indeed, the documents used reveal the assumptions anticipated during the design stage, the legislation that took place in practice as well as the framing of problems and subsequent solutions. In sum, the variety of policy documents available, from statistics to consultations and reports, alongside the iterative approach taken to data analysis, has produced a comprehensive account of the past decade of reforms and the centrality of the loans to market making.

Conclusion

This chapter has laid out the methodological orientation of this thesis, foregrounding market making and student loan debt as empirical objects. For both, emphasis is placed on the production of knowledge that is mobilised by policymakers towards the construction and design of markets. By foregrounding problematisation as an analytical orientation to the study, a 'second order' (Pottage et al., 2014) approach denotes the position of the researcher to follow the ways experts problematise. Placing emphasis on the various evaluations, assessment and problems that may arise as part of market making. A qualitative, document analysis is applied as a research method for this thesis, because documents are able to reveal the application of expert knowledge established as part of market formation processes and the potential influence of the loans as part of its design. In this respect, it is not only economic knowledge that is considered to inform the design of the market but noting the calculative practices of the loans to draw out the configuration of debtors as part of this specific arrangement.

Document analysis makes visible practices of market organisation around accountability devices. In studying market making from a governance perspective, the use of documents opens a lens into the bureaucratic practices of the state as well as how such knowledge

comes to function in the world. The use of document analysis is applied to extend the methodological approach to market devices that is often taken by STS-inspired research, which place emphasis on the living materiality of markets as products of its design (Deville, 2015; Hébert, 2014). Instead, I take a view of documents after Anne-Marie Mol's (1999) onto-politics. This concept highlights the ways knowledge is formed around an object of study and the various ways of practicing such knowledge. For the analysis, onto-politics is an orientation which gives voice to expertise and the ways the market as a particular organised arrangement receives its shape.

Further, an empirical approach to studying the ICR loans includes the calculative practices as an account of the temporal and moral obligations. The contractual terms of the loans alongside calculations of future repayment draw attention to the obligations market participants are expected to take. Both a qualitative and quantitative approach to studying the ICR loans is taken which includes an analysis of policy documents alongside statistical reports that shed light on how repayment is calculated and operationalised in the market. In relation to Mol's onto-politics, the contractual and calculative practices of the loans reveal the ideal form the market is expected to take and also the ideal subject in debt. The very expert knowledge mobilised informs the various ways such knowledge comes to be practiced. To draw out this friction, noting the 'messiness of outcomes' or the problems that may arise when implementing markets as a response to collective concerns.

Finally, the research design includes documents from both governmental and non-governmental sources which both take part in mobilising knowledge to evaluate, assess and repair the market. In reference to the social studies of markets, emphasis is placed not only on the market as a calculative economic arrangement (Mackenzie. et al., 2007), but on the various forms of expertise that may come to shape and construct the particular market at hand (Jenle & Pallesen, 2017). A content and thematic analysis had been taken to identify the suitability of documents and draw out the main research themes. As such, the public and private demarcation of the loans, as well as issues that had been identified with the current market arrangement form leading themes onto the following analysis chapters.

Analysis One

The politics of governing collective concerns

Introduction

This thesis began by outlining existing accounts in HE policy studies that critique the erosion of HE as a public good, attributed to the 2010 reforms shift towards private forms of funding (Holmwood, 2011). Whilst the removal of state funding alongside the tripling of tuition fees can explain some of the issues the sector is facing as a result of marketisation, it does not adequately account for the use of student loans as a publicly subsidised funding solution. The underlying assumption that the ICR loans can be compared with private fees seems to be premised on the idea that the market mode of arranging the sector necessitates a move away from public, or rather state forms of funding (Brown & Carasso, 2013). Instead, I suggest, the public and private forms of indebtedness the loans engender complicate this straightforward narrative. This is so, because the obligations of debt are often based in convoluted moral and temporal relations (Adkins, 2017; Zaloom, 2020) and thereby must be understood in the context of the HE market.

In pointing to the hybrid funding solution the loans represent, also requires accounting for the unique relations between the state and the market. I claim this in respect of political economy studies of debt which critique state reliance on the market as the best means for distributing public resources which necessarily results in more indebtedness (Lazzarato, 2009; Roberts & Soederberg, 2014; Soederberg, 2014a). The premise of such work stems from a Marxist, or socio-historical orientation towards debt and indebtedness, therefore understands debt as a general, universal category that always reproduces the same, exploitative social relations. However, the particular form the ICR loans take, including the enrolment of market participants in its calculative operations, challenges the view of debt as immanent to social relations. In this respect, the aim of this chapter is to begin challenging the conceptual and theoretical assumptions described above, by elucidating the terms by which a market-based solution has been organised around the ICR loans, alongside the obligations student loan debt configures in the HE market.

I examine this with reference to the social studies of markets literature, which I have previously demonstrated, provide a suitable analytical framework. Namely, 'markets for

collective concern' is an empirical object that refers to markets, that are also policy-instruments instructed by governments to respond to collective problems (Frankel et al., 2019). In addition, 'accountability devices' give concerns their specific forms, by distributing obligations which co-ordinate participants into specific market relations (Neyland et al., 2019b). For the HE market, this would mean studying how the 2010 reforms had been staged by the government, as an issue to be resolved. Doing so elucidates the consequences of applying a market-based solution organised around student loan debt. Emphasis here is paid to the particular obligations the ICR loans prefigure, as means for tying universities and students in specific market relations. With this I am referring to the political, economic and normative circumstances that have come to define the obligations of market participants, thereby giving choice, competition and price their form. In this respect, noting the particular calculations of the loans as part of repayment schedules, draws attention to the assessment and evaluation in terms of whether such obligations had been met in practice.

Analysing the obligations student loan debt prefigures necessitates investigating the particular relations that are formed. To explore the normative, economic and political terms by which market relations are informed by indebtedness, as a condition induced by the state, I analyse the implementation of the 2010 reforms. This is achieved by building on Callon's (1980) problematisation as an approach to investigate the politically charged framing of the 2008 financial crash which could not but result in a market solution organised around student loans. Indeed, the reforms had deployed loans as means for establishing market relations in a way that fees alone could not, prefiguring the obligations market participants had been expected to hold. Part and parcel of the obligations of debt are established in the contractual terms of the loans.

The analysis delves deeper into the power, moral and temporal relations of the ICR loans by connecting their calculation on public accounts to the loans distribution of accountability. The power relation is intended to highlight the ways in which the ICR loans have been imposed as a condition of indebtedness. With moral I am referring to the processes and mechanisms of government that mobilise narratives such as the 'promise to pay' or financial responsibility. Similarly, the temporality of the ICR loans signifies gearing debtors towards particular futures. Taken together, the relations debt forms in the market demonstrates their ties to the evaluation of the success or failure of the reforms.

Situating debt obligations within market relations

The implementation of student loans in 2010 around which the HE market had been organised, demonstrate how the political, economic, and normative concerns that emerged had become inseparable to the loans and design of the market. To contextualise, I draw out some of the important insights from the social studies of markets literature discussed throughout this thesis, that will be relevant for the analysis. This is also achieved in conjunction with literature in political and cultural economy to tease out the relations of debt that are formed, in the aim of addressing the consequences these carry for debtors.

Within political economy studies of debt, replacing state funding with private loans has been extensively critiqued for reproducing inequalities (Montgomerie & Büdenbender, 2015), perpetuating further indebtedness (Langley, 2006) and forming exploitative relations (Soederberg, 2014b). Political economists, like Susanne Soederberg, argue that the neoliberal state in retreat successfully presents the market as the best, alternative means for distributing resources, thereby depoliticising and normalising a widespread reliance on student loans (p. 695). However, like many others, Soederberg understands debt as a constitutive, exploitative relation that is reproduced by the market and the state. In contrast I argue that to understand the specific features of student loan debt and the consequences it carries for debtors, careful attention has to be paid to the particular forms of market activity and the way that it is governed by the state.

From an economic sociology perspective, 'markets for collective concern' denotes implementing markets in traditionally, non-market areas to reveal a new form of governing, in which markets have been deployed by policy makers because of an expectation that they offer the best solution to public problems (Frankel et al., 2019, p. 14). The HE market is an example of a market for collective concern. It has been introduced as a means for efficiently distributing public resources (Newman & Jahdi, 2009). However, what characterises the empirical object of markets for collective concerns is the continuous work and organisation that is central to policymaking. From this perspective, experts mobilise a particular concept of the market that constructs the market at hand.

What remains to be explored is the way the HE sector is governed as a policy instrument, namely that it is evaluated, assessed and repaired as a market. To challenge a narrative of the state in retreat, or as a general market form that cannot account for the forms of

indebtedness that are part of market relations, instead emphasis here is placed on the ways market terms are mobilised against bureaucratic forms of organising the sector. Crucially, one that privileges the distribution of funding by way of markets. In this respect, the HE sector has been organised as a result of the practices and techniques implemented by the state, aimed towards achieving specific goals.

I claim this in relation to the social studies of markets literature, who contend that the market is composed, or governed to achieve state defined goals (Reverdy & Breslau, 2019). An empirical inquiry into the HE sector includes exploring the problems a market would pose the best solution for. Doing so reveals the ideal market form experts, or market designers give rise to, against which the area is assessed (Ossandón & Ureta, 2019). A central component of this process, and one that will be of focus throughout this section is problematisation (Callon, 1980). In the work on markets for collective concern, this term has been employed principally to demonstrate the ways market arrangements become problems in need of repair by experts, set against ideal market forms (Ossandón & Ureta, 2019). Unlike previous studies of markets for collective concern, which place problematisation in relation to an ideal market form that is mobilised by technical expertise (Jenle & Pallesen, 2017; Ossandón & Ureta, 2019), I suggest that problematisation for the HE market should be understood in relation to the funding solution introduced.

In this respect, student loans must be understood in terms of the obligations they prefigure for market participants, because debt primarily signifies an 'obligation to repay' (Guyer, 2012) affecting both public and private debtors. To make sense of how market mechanisms had been established around student loans, I draw on Neyland et al.'s (2019b) work on accountability devices, which refers to a form of market device that coordinates participants, by distributing normative and economic obligations: 'who ought to do what, who and what ought to be responsible' (Neyland et al., 2019b, p. 262). It provides the analysis an additional lens to the work of policymakers, or experts described above, to elucidate the ways the particular terms by which the market has been deployed is organised around the device. While Neyland et al. (2019b) considers the normative and economic terms of the market alone, as political economy studies of debt have shown, replacing public funding with student loans is a politically motivated move and must be analysed as such (Zaloom, 2020). In this respect, I pay specific attention to the political terms of the

reforms and the way student loans had politically prefigured participants as part of the market.

Furthermore, I note that obligations of debt must be understood also in reference to power and temporal relations, alongside moral claims. It reflects the 'promise to pay', a central constitutive obligation that can be found in 'the logic and operations of debt' (Adkins, 2017, p. 448). With this I mean, practices of calculation and schedules of repayment that are part of the terms of the loans. Similarly, I pay specific attention to the obligations that student loan debt entangles participants in. By bringing into focus what is at stake and who is responsible for addressing these matters (Neyland et al., 2019b, p. 262), I expect the analysis to raise the question: what are the stakes of funding the HE sector with student loans? I mention this because student loans must also be understood in terms of the market relations that debtors are configured around. As part of markets for collective concerns, accountability devices give precise form to concerns and the commitments that need to be discharged to achieve resolution (Neyland et al., 2019b). In this respect, accountability devices are applied here to make sense of the ways political, economic and normative concerns are framed, to determine market arrangements and give precise form for participation.

To summarise, the following analysis is centred around problematisation. It is presented in two parts to emphasise the issues and terms by which the market had been justified as the best means for distributing public resources. It also engages with the particularities of student loan debt, noting the calculative practices and contractual terms of the loans in order to clarify the ways loans entangle participants in market relations. In this respect, the analysis pays close attention to the relationship between collective concerns and market relations as an expression of debt obligations. And finally, the political and ideological reworking of problems as means for exerting state control.

The market relations of student loan debt

The case of funding HE as a collective concern

The responsibility over funding HE in England had been a politically contested issue over the last half century, reverberating amongst politicians, civil servants and economists (Hillman, 2013). It is described here to cover three distinct periods: state funding, low-fees shared

funding, and high-fees with loans. The first, began with the release of the Robbins Report in 1963, which set the normative basis for state supported expansion to replace a privileged system that belonged to a select few (Evans, 2004). In this regard, the Robbins Report is useful for understanding the underlying ideological basis that is still viewed as the ethos which guides political decisions in British HE today. The Review consolidated the connection between the societal benefits of HE and public spending, by emphasising the need for more university places in support of the 1960s 'technological revolution' (Evans, 2004). Yet it also encouraged public accountability towards funding HE, emphasising social justice by famously stating that 'courses of higher education should be available for all those who are qualified by ability and attainment to pursue them and who wish to do so' (Committee on Higher Education, 1963, p. 8). As such, it elevated expansion in the form of widening participation¹² to a government policy, in which any failure to fund HE threatens this ideological basis becoming a type of concern.

However, it was not until the 1990s under a Labour government led by Tony Blair, that a shift towards a shared funding model with low-fees¹³ had been implemented, because the traditional funding structures in place had not been equipped to finance a mass system (Hillman, 2013). It had been part of a wider wave of privatisation which sought to lower public spending, and frame HE as a private benefit that is reflected in a potential to increase earnings post-graduation.

By 2010, almost half a century of depleting HE from state funding had resulted in the third and final shift, characterised by marketisation and student loans. What I want to suggest here, is that the economic and normative terms of the reforms, namely allowing for further expansion by making financial changes to the sector, had been ideologically reworked in light of the 2008 financial crisis. In this respect, staging the reforms following the crisis had been engendered by what is typically referred to as 'austerity' type governance. While

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¹² Widening participation is a central policy theme that has become ubiquitous within HE in England. It is essentially a government commitment towards the diversification and expansion of the number of students from disadvantaged backgrounds (Burke, 2013).

¹³ The use of 'low-fees' to describe the funding system in place is not to suggest that the amount stipulated by Tony Blair's Labour government, and subsequent governments is considered low, but to introduce a comparative lens from the amount of fees paid by students today.

taking many forms,¹⁴ here it is relevant as it helps explain state action made possible through economic crisis narratives (Montgomerie, 2016, p. 149). As Clarke and Newman demonstrate, government narratives around the financial crisis had been reworked: 'from an economic problem (how to "rescue" the banks and restore market stability) to a political problem (how to allocate blame and responsibility for the crisis)' (Clarke & Newman, 2012, p. 300). With the 'expensive' welfare state and the public sector taking the majority of the blame, public spending more generally, and HE funding specifically had been targeted as a problem to be resolved. In this respect, the general call towards a reduction in government expenditure had been resolved by implementing debt-based solutions, carrying their own political and economic effects (Montgomerie & Tepe-Belfrage, 2020).

For HE it reframed public funding as a concern to be resolved with loans, that is best distributed by way of the market. What I want to suggest here is that the political, economic and normative problems identified at the time of the reforms had been reworked into the market and the loans as solutions. I claim this in contrast to accounts in political economy that take debt relations at the heart of unregulated markets (Lazzarato, 2009; Soederberg, 2014b). Instead, a much more intricate relationship forms between the market, loans and the state which resembles Levy's (2006) suggestion that the state colludes with the market, governing through it to achieve its goals.

Crucially, it signified the loans as ideal for reducing public spending to be distributed by way of market. As will be demonstrated later in this chapter, justifying the ICR loans as a suitable solution that is able to reduce public expenditure relates to the accounting methods devised. The loans not only shift responsibility to students and effectively the taxpayer, but the market becomes a central part of the solution to reduce public spending. Tying the market and loans together as a solution to reduce public spending signifies that market features become goals of government. In this respect, rather than an unregulated market suggested above, the HE market is a prime example of a market that has been organised as an outcome of politics. What I consider next then, is how accountability had been distributed, to understand how debt relations had permeated the market.

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¹⁴ Austerity has been a widely used concept in literature denoting varying degrees of political action or ideology. For an extensive discussion on the politics of austerity more generally and in relation to the British household specifically (see Montgomerie, 2016).

The ICR model of loans had been set up in remedy of the previous funding system,¹⁵ which failed to ensure either widening participation or sustainability of funding. To contextualise, the Labour government commissioned an independent committee chaired by Lord Browne the former Chief Executive of BP, with the aim of assessing the current problems of the sector and establishing a suitable path towards sustainable and fair funding. The report, published as the Browne Review (2010): *Securing a sustainable future for higher education,* saw light during the first year of the Liberal-Conservative coalition government, effectively turning into legislation following a vote in December 2010. Because the newly formed government had notoriously retracted their campaign promises to abolish tuition fees, implementing the loans had effectively ignored the two central actors that would become liable for the outcome of the reforms – both taxpayers and students.

By imposing the loans as a shared public-private funding solution to be distributed by the market, the specific economic and normative obligations had been set. In this case, the reforms had aimed to create an open dynamic and affordable system, reducing regulatory burden by making the sector 'more accountable to students, as well as the taxpayer' (Department for Business Innovation and Skills, 2011, p. 2,7). While several funding solutions had been considered, such as a lifetime graduate tax, the loans had been presented as a favourable progressive solution because repayment is calculated against labour market returns: 'the payment due is dependent only on the income of the borrower, it is independent of the interest rate and size of debt outstanding' (Browne, 2010, p. 7).

What is crucial to note here is by tying payment to the income of the borrower rather than the size of the loan, essentially separates the debt that students are liable for – as calculated according to income – with a separate growing debt that is then shifted onto the taxpayer. While this loan term had been an essential part of making the loans progressive, it signified the taxpayer a liable market actor because any non-repayment is shifted to the public.

To elaborate, as an accountability device, the economic obligations signifies students would be liable for repaying the loans contingent on earnings. It points to the very unique financing assistance that operates within English HE. In contrast to consumer type loans¹⁶

¹⁵ Prior to 2012 the maximum tuition fee at publicly funded universities had been £3,375, alongside a £5 billion government grant 'the block grant' that had been allocated to BIS for undergraduate provision.

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¹⁶ Government-guaranteed bank loans (GGBLs) have been used in the U.S. while in the previous U.K. loan system fixed-term mortgage-style loans had been instated.

which necessitate personal collateral to prevent default, the ICR loans had been devised to remove risk and uncertainty from the borrower by protecting borrowers against the repercussions of defaulting on their loans. Yet arranging the loans as contingent on repayment also marks the economic value policymakers had attributed to a HE degree that can be measured in terms of success or failure in the labour market. More importantly, this produces an unusual arrangement of power relations between the state and debtors, due to the way accountability is arranged. The ICR loans appear to offer a more stable solution because non-repayment is built into the terms of the loans. While this had been the prevailing assertion between policymakers and economists (Hillman, 2013, p. 250), the ICR loans must be understood as a coordinating device for market participants. Put simply, because the reforms had set up the market to respond to public funding as a collective concern, the taxpayer had become a liable actor in the market, where non repayment is shifted to public accounts. In this respect, a much more intricate explanation is given in what follows, which addresses the normative obligations the loans as an accountability device prefigured for market participants.

To demonstrate how student loans prefigure normative obligations, it is crucial this is examined in reference to the 'promise to pay' because it is an inherent feature of debt obligations (Adkins, 2017; Guyer, 2012). The promise to pay entangles debtors not only in economic relations, but also moral, temporal and power relations, contingent on the particularities of the loan (Zaloom, 2018). For, the ICR loans do not gear debtors towards the promise to pay in a manner akin to consumer loans, which lays out schedules of debt repayment. But instead as alluded to above, the moral and power relations of the loans can be located within governmental policies which 'promise... children will reap opportunities in the future' (Zaloom, 2020, p. 230). The relationship that is formed between the state and students-as-debtors is both a power relation, because the loans had been imposed to replace fees. Yet also it intentionally makes the argument that HE is a good investment in one's own future. The moral obligation to repay thus already constituted as part of the ICR loans.

HE policy advisors such as Nicholas Hillman, who has also served as director of the Higher Education Policy Institute (HEPI), demonstrates how economic thinking focused on the

responsibility of adults for their own futures had been an influential line of reasoning for the reforms. Hillman draws on Milton Friedman to exemplify:

Individuals should bear the costs of investment in themselves and receive the rewards, and they should not be prevented by market imperfections from making the investment when they are willing to bear the costs... A governmental body could offer to finance or help finance the training of any individual who could meet minimum quality standards by making available not more than a limited sum per year for not more than a specified number of years, provided it was spent on securing training at a recognised institution. The individual would agree in return to pay to the government in each future year x per cent of his earnings in excess of y dollars for each \$1,000 that he gets in this way. This payment could easily be combined with payment of income tax, and so involve a minimum of additional administrative expense. (Friedman, 1955, p. 140)

While Friedman advocates the view of HE as an investment in one's future that should be guarded by the government if individuals are unable to meet the costs set by market prices. It explicates both the power and moral relations that students are subjected to by the government as a wager on their very own futures. It is certainly part of utilising ICR type loans as a means of addressing funding HE as a collective concern. Similarly to Zaloom (2020), individual success and failure is measured on the ability of the graduate to repay back their debt. Not only because repayment is contingent on labour market returns, but simply because non-repayment puts the taxpayer – or public – in greater debt.

While this is not to simply suggest as neoliberal critics do that 'governmental regimes successfully deploy financial instruments and accounting logics as tools of social and political discipline, spreading economic calculation into even the most intimate spheres of life' (Zaloom, 2020, p. 231). Instead that moral obligations are entrenched in government policies thereby becoming a central part of market design. The reforms had been organised to give shape and set expectations for how students should navigate responsibilities. Replacing student loans with state funding, as well as tripling fees had left the majority of students dependent on loans to fund their studies, with a small minority able to pay fees upfront¹⁷. In evidence, 85% of students had taken loans out of the overall eligible

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¹⁷ At the time of implementing the loans 15% of students had not taken up loans to fund their study. This has decreased to 4%, signifying that 96% of students take loans to fund their studies (SLC, 2021). These numbers reference solely undergraduate loan take up rates and do not reflect the postgraduate loans made available.

population (SLC, 2015).¹⁸ Crucially, the efficacy of the system had been designed towards higher debt take-up rates, with the assumption that an increase in loan take up rates by students from higher socio-economic households, would result in greater repayment rates overall and would offset any non-repayment by lower attaining graduates. As I will go on to show, the assumptions held by BIS (2011) had been that shifting financial responsibility to students would incentivise choosing courses that would result in higher income.

Marking out exactly how the loans had coordinated market relations between students, universities and subsequently the taxpayer, I show how funding HE became a collective concern, with some of the political, economic and normative obligations elucidated.

Organising a HE market

While the marketisation of HE had been an ongoing project of the UK government for the last half decade (Evans, 2004), as I have been suggesting, a combination of high-fees subsidised by student loans had redesignated existing market relations towards achieving efficient ways of distributing funding. Students and universities had become entangled in new market relations, enabled by the loans. Removing government funding and increasing tuition fees had been implemented to entangle universities in a form of price-based competition, directing students to choose as a reflection of fees. Specifically, the market envisioned in the 2011 White Paper had been a liberal market based on pricing mechanisms, with competition and choice reflecting levels of quality: 'We want to ensure that the new student finance regime supports student choice, and that in turn student choice drives competition, including on price' (Department for Business Innovation and Skills, 2011, p. 19). This had been suggested in contrast to the previous low fee, ¹⁹ shared funding system, in which student choice over where to study failed to carry financial repercussions for universities.

The underlying justification for the student loan system must be considered, as it invariably framed the design of the new market. While tripling tuition fees had been publicly conceived as contentious (Holmwood, 2014) because of the political turmoil mentioned at

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¹⁸ The eligible student population to receive student loans in England is policy contingent and had changed over the loans lifetime. It includes factors such as residence status, age at receipt, and mode of study. For more information on this topic see (Pollard et al., 2013, p. 44).

¹⁹ Prior to the reforms the maximum tuitions fee at publicly funded English universities had been £3,375, for British and EU students (McGettigan, 2013, p. vii).

the time of the reforms. The loans had been formally justified as a fair and equitable solution because 'no first-time undergraduate student will be asked to pay for tuition upfront' (Department for Business Innovation and Skills, 2011, p. 9). As I demonstrate in the following section, replacing tuition fees with loans effectively rendered the amount of fees advertised obsolete because of the ways debt is calculated on Treasury accounts. This point is important as it seeks to move away from literature which positions fees as the basis for critique of HE marketisation (Brown & Carasso, 2013). In doing so, it places greater emphasis on accountability, both for students and universities.

To contextualise, the aim of the reforms had been to reduce regulation by providing students with tools to make 'informed choices' regarding where and what to study (Browne, 2010, p. 29): 'Government has a responsibility to ensure that all pupils, in all types of school, have access to high quality advice about the benefits of higher education and well informed support to ensure that they are able to make the *best* [emphasis added] choices'. I note here the emphasis placed on best, because in replacing upfront fees with loans places greater gravity on the choices students make. More crucially, it endows the government with the power to define what constitutes the 'best' choice in relation to funding.

The prevailing assumption had been that implementing the loans would achieve on the one hand a reduction in state involvement in HE, whilst ensuring the safeguarding of the public's interest. It would be however, market mechanisms, rather than the government that would bring about such consequences, as the best means for distributing funding:

'The public money that supports higher education courses should come predominantly in the form of loans to first-time undergraduate students, to take to the institutions of their choice, rather than as grants distributed by a central funding council'. (Department for Business Innovation and Skills, 2011, p. 15)

The public private funding solution that defines the ICR loans had necessarily resulted in the assumption that the market would be the means to distribute such resources as opposed to a centralised funding council.

exercises see (Shattock, 2018; Shore, 2008; Watermeyer, 2016).

²⁰ While I do not go into great detail over the specific tools the government utilises to inform student choice, what the paper refers to are the various quality exercises (REF and the later TEF) that universities must participate in. These are not discussed here mainly because it forms a separate market in which universities compete over research funding (Neyland et al., 2019b). For more information on the specificities of quality

The reforms then anticipated particular market relations to be enabled by the new funding regime. For universities, a reduction of funding from the Treasury and a reliance on student loans, had meant universities are responsible for securing funding by competing over tuition fees. As envisioned in policy papers, universities could make themselves more attractive to students by either lowering prices or increasing quality:

We will tackle the micro-management that has been imposed on the higher education sector in recent years and which has held institutions back from responding to student demand. We must move away from a world in which the number of students allocated to each university is determined in Whitehall. But universities will be under competitive pressure to provide better quality and lower cost. (Department for Business Innovation and Skills, 2011, p. 2)

The reforms had placed universities in a particularly fragile position which necessitated responding to student demand, because failure to recruit students would result in a lack of funding for their activities.

This arrangement was made more complex as one of the main aims of the reforms had been to open up the sector to private providers, who would not be subject to the same regulatory burdens and thereby able to charge fees in a way that universities could not. To quickly explain, the Office for Fair Access (OFFA) had been set up as part of the reforms to determine universities' eligibility to charge above £6,000, provided they successfully negotiated access agreements (a part of widening participation policies). In practice however, OFFA have no legislative power, signifying that all institutions could in fact charge up to the maximum £9,000 without any real repercussions. In contrast private institutions could both recruit unlimited amounts of students as they are not financially dependable on government funding through student loans, ²¹ nor would they stand accountable in terms of quality exercises. Introducing private providers effectively produces a secondary unregulated market, which signifies private institutions can recruit unlimited amounts of students in a for-profit model as they are mainly dependable on those who are able to pay higher fees without loans.

For students, choice had been set up as a means for both shifting financial responsibility and in doing so shifting responsibility for their own future. This is made clear in the Browne

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²¹ Students however are able to borrow up to £6,000 to help with the cost of their tuition fees, which are normally much higher.

Report which stipulated the problems with the previous market arrangement, stating: 'the ways in which students have been making choices so far is not favourable as it is disconnected from the funding of the sector, these reforms seek to tighten this connection' (Browne, 2010, p. 7). It usefully draws attention to the centrality of the loans to this arrangement. The assumption that had been made by both Browne and later articulated in the 2011 White Paper, had been the gravity or rather meaning that would be assigned to choice when personal liability is at stake: putting financial power into the hands of learners makes student choice meaningful' (Department for Business Innovation and Skills, 2011, p. 5). This quote echoes quite a dystopian note. The prevailing assumption made here is that imposing debt undemocratically on students and the public can somehow be defined as empowering. Instead, as a key relation between the government and students, indebtedness is now a constitutive condition of market relations. To extend this point further, the following section discusses the implications of financing the HE sector with student loans.

This section has sought to further the understanding to the centrality of the loans in precipitating market relations within HE. Special attention has been given to the political, economic and normative problems the reforms had been set up to resolve. This has been achieved by placing the reforms in the context of austerity governance, to demonstrate how the HE market had been designed as an efficient means for distributing funding, namely student loans. Crucially, I have shown that relations of debt do not sit at an external relation to the market but become an inherent feature of its relations. As such, the political, moral and power relations are part of how students and universities are configured around choice and competition as market terms. To further understanding of the obligations of student loans as an accountability device, the following section delves into the contractual terms of the loans, and the calculation practices on government accounts. I argue that repayment figures had become consequential to defining the success of the reforms. More importantly, I demonstrate in further detail the normative obligations the loans prefigure for students. In turn it reveals how the market had become problematic as well as the consequences it carries for HE as a collective concern.

The infrastructure of the ICR loans

If up to this point the analysis had centred around HE funding as a collective concern, with student loans acting as an accountability device to distribute obligation and prefigure market relations. This section seeks to delve deeper into repayment terms of the loans to understand the significance of non-repayment, and how these are tied to the market. This is achieved by attending to the contractual terms of the loans and the calculation of repayment. In this respect I follow Adkins (2017) who calls for understanding the infrastructure of debt and its particular operations, namely the calculative practices as crucial to unpacking how people are enrolled in such operations. In the following I extend the narrative of the previous chapter by situating the government's commitment to reduce public expenditure against calculation practices. While the latter sought to respond to these concerns, they raised their own problems in return. This point is close to that of Ossandón and Ureta (2019) whom in following Callon's (1980) work on problematisation, have used the term to refer to the reworking of problems, which are never resolved but simply come to replace previous problems. As I suggest, engaging with the terms of repayment explains how by distributing accountability, the accounting practices had been able to assess both whether obligations had been met, yet crucially whether the reforms had been deemed successful or not.

A central part of the decision to implement loans rather than a graduate tax solution, such as the one considered in the Browne report, had been necessarily related to advantageous accounting practices. As previously raised with Montgomerie (2020), the crisis established the conditions for what is called austerity-type governance, entailing reduction in government spending to be reflected in departmental accounts. In effect, issuing loans in replacement of the teaching grant previously received by BIS, the government department responsible for HE, had ensured that savings would appear on departmental accounts as public spending.

This is mainly due to how expected repayments are accounted for, which reduce public borrowing when they are made. In contrast, loss can occur either through interest accruing on the loans *when* it is made, or any write off *at the end* of the thirty-year repayment period. The ICR loans temporally tie students to a thirty-year commitment effectively arguing that if a degree does not yield the return on the investment as predicted, graduates

will not be liable to repay. However, placing emphasis on the thirty-year point of acquittal takes away from the continuous repayments graduates make throughout their working lives. More generally, repayments are collected directly through the UK tax system - HM Revenue and Customs (HMRC) – overseen by the student loans company (SLC) or paid to them directly. Crucially, the terms of the contract stipulate that returns are to be made only if a graduate earns above a certain threshold, which at the time of the reforms had been set to £21,000 (Department for Business Innovation and Skills, 2011). The repayment threshold had been set to increase every year along with graduate earnings (Department for Business Innovation and Skills, 2015a). In effect, the threshold forms a central part of the ICR loan policy because it had been set to protect lowest earning graduates that would not be required to repay back the amount owed. However, as will be discussed further below, its policy contingent nature signifies that any changes effectively increase or decrease graduate contributions and therefore becomes a mechanism for reducing public debt: 'an important contribution to the government's debt reduction plan whilst also maintaining a fair balance between the taxpayer and graduates in funding Higher Education' (Department for Business Innovation and Skills, 2015a, p. 6). In other words, the repayment threshold carries significant weight for the efficacy of the funding system as a collective concern.

At its point of inception, the accounting system had been favourably designed to achieve deficit reduction because of the built-in impairment that records loss only *when* it occurs. In simple terms, the built-in impairment refers to the amount of expenditure recorded to cover loss. This occurs either through write-offs or interest added. However, the extremely complicated accounting terrain of the loans produced a significant problem because future non-repayment is considered a cost and still needs to be budgeted for, requiring modelling which enabled to value repayments that are made in the future. Consequently, while studies within economic sociology have placed emphasis on knowledge and expertise in terms of market design (Jenle & Pallesen, 2017, p. 5). Within the HE market, I suggest that the ability to accurately predict repayment rates becomes a form of expertise that allows the government to exert control over the future of the sector – and within it the public and students as liable actors. Yet as I will demonstrate in the following chapter, this is achieved by changing the terms of the market. This point is important as it opens a view to the ability of market experts to both evaluate the success or failure of the reforms, as well as point to

and repair market failures (Frankel et al., 2019). As raised in the previous section with Zaloom, the moral relations of the loans can be found within modelling, defining a course of action for subjects which sets expectations regarding their behaviour. While the obligations of repayment are subject to success in labour market outcomes, in effect integrating market success as a result of accounting practices proves much more consequential for all market actors.

A final point I wish to make in terms of the calculation of the loans regards their temporality, to elucidate the gravity of forecasting repayments. Within the complicated modelling of the loans, accounting for future returns necessitates procuring a discount rate - Resource Accounting and Budgeting (RAB) charge - a method that is conventionally used across government departments to record expenditure (write-offs) of any non-repayment of the ICR loans. Put simply, it is an estimate of the cost to the government of providing these loans, as a proportion of the net present value (NPV) of loans issued (Crawford, Crawford, & Jin, 2014, p. 62). The RAB charge is calculated to reflect the new loans issued over multiple cohorts, and across all students. Its main numeric, taking repayment forecasts and discounting them back to the issued year. While the RAB calculation is speculative in form, it becomes extremely consequential for policymaking because it ties present market conditions to the future.

I mention the RAB charge here because the loans are policy contingent. The government holds the power to change the terms of the loans both for *current* and *future* borrowers with the aim to induce more repayment or change the way the loans are budgeted. This can be achieved without oversight. In other words, the constant calculation of the loans repayment figures, is used as a means for evaluating whether the government had attained its goal to reduce public expenditure. Crucially, the government reserves the right to change the terms of repayment confining students to a financially unstable situation, both in the present and in the future. However, altering the loan terms is problematic because at their inception the loans had been designed with a progressive view in mind. Namely, higher earning graduates would carry more of the costs with lower earning students may not contribute to the system.

This is evidenced in two of the loan terms - interest rates and the repayment threshold. The reforms introduced a real rate of interest of 3 per cent from the point at which they are

issued until the April following graduation from university (Dearden, Fitzsimons, & Wyness, 2011). The current interest rates RPI + 3% while studying and RPI + 0-3% (income dependent) for graduates. Interest rates are not affected by the size of the repayment made (equivalent to 9% of gross income), but by the overall size of the loan, carrying effects for the repayment period over which it is repaid (and consequently the amount of debt written off) (Crawford & Jin, 2014, p. 9). Yet any changes to interest rates can potentially threaten the progressive aspect of the system, because of the ways interest rates are calculated in line with graduate earnings. Any negative changes to either interest rates or the repayment threshold places greater burden on lower- and middle-income earners.

The ICR loans then are drastically different to traditional loans in which repayments are made according to fixed interest rates at set calendar dates (Adkins, 2017, p. 455). Instead, the point I aim to make by highlighting repayment calculations and loan terms is that understanding the infrastructures and particular form of the ICR loans reveals the ways students, and taxpayers are enrolled within its operations. What is critical about this form of debt, as will be made clear in the following chapter, is that it configures within its calculation a necessary subject of debt – a particular entanglement of the student within the market. One that has political power over their future, with the ability to exercise financial responsibility over their own choices.

In summary, the ICR loans is used as a means for reducing public expenditure. As previously shown, austerity governance had politicised public funding as a concern to be resolved by way of market, simply because it had been deemed as the most efficient means. Yet student loans complicate this narrative. The convoluted accounting techniques alongside accurately predicted repayment rates, had produced a problematic calculation to assess the efficacy of the reforms. In this respect, calculating repayment rates signifies all market actors liable: taxpayers, universities and students. Importantly, because the loans are policy contingent, meaning the government has power to change the terms of repayment, it challenges the significance of choice that had been presented in the previous section. In this respect, it begins to allude to the dynamics of control debt introduces within market relations.

Conclusion

This chapter has presented the centrality of the ICR loans to the design of the HE market.

The pertinence of the loans is mainly evident in the ways students, universities and the

taxpayer had been prefigured in particular market relations, as a response to funding HE as a collective concern. In setting this publicly backed yet privately funded solution in replacement of the state grant, necessitated designing a market that could distribute funding in a manner that reflected the unique obligations of the ICR loans. This is because the ICR loans are unlike traditional consumer type loans that gear debtors the promise to pay in a set future. Instead, the ICR loans tie students to a contractual relationship that signifies any unpaid debt is transferred onto the taxpayer. Imposing debt as a solution to fund HE is then given more gravity because it had been implemented by the government. Rather than the widespread reliance of loans in replacement of government funding, and their distribution through the market (Soederberg, 2014b), the terms of the market had been organised by the government to produce favourable conditions of repayment.

Market terms, namely choice and competition had been organised around the loans shifting financial responsibility to both universities and students, in a way that fees alone could not. The assumption present at the time of the reforms had been that removing the block grant would enable price-based competition, where universities would either reduce prices or improve quality to recruit students. It placed universities in a financially vulnerable position contingent on their ability to recruit students. While implementing market mechanisms in HE is often attributed to the tripling of fees as a result of the reforms (Holmwood, 2011), the loans must be understood as central to the market because students were not liable to pay tuition fees upfront.

The moral, temporal and power relations that are central to a loan-based solution signified the distribution of responsibility for students, entangling them in particular market relations. The moral dynamics of the loans are visible in the value ascribed to choices in the market. As mentioned above the ICR loans do not gear debtors towards the obligation to repay, but instead obligations are distributed through market policies. Choice in the HE market is directly related to the financial responsibilities of students over their future. As made evident in the Browne Review (2010), the expectation had been that the new funding regime would elicit greater gravity over course choice. In a similar way to Zaloom (2020) the obligations to repay do not trickle down into the everyday calculative practices of subjects, but instead can be found in the policy frameworks and technical tools that signify success or

failure. In this respect, the loans entangle students in normative and economic relations that are part of market mechanisms.

The political and economic circumstances surrounding the reforms had been central to imposing the ICR loans as a response to funding HE as a collective concern. Tracing the problematisation of austerity governance that resulted from the 2008 financial crash revealed a political relationship formed between the public, students and the government. The ideological reworking of public debt as an economic problem by shifting responsibility onto the taxpayer had necessarily resulted in decreasing public expenditure and replacing grant funding with the ICR loans. Mainly the loans had been deemed a preferable solution because of the convoluted accounting methods. An immediate decrease in departmental spending had been achieved because the loans do not count as public expenditure, with any loss appearing only due to the interest subsidy or future non repayment. As a measurement of the reduction in public expenditure, calculating non-repayment of the loans is necessary to evaluate the efficacy of market mechanisms. This point is critical because it demonstrates that the government can exert direct control to change market mechanisms to increase loan repayment. In this respect, the governance of debtors does not sit externally to the market as is often suggested (Langley, 2009; Lazzarato, 2009), but instead comes to permeate it.

Analysis Two

On the problems of funding a HE market with debt

Introduction

This chapter follows the issues that emerged following the implementation of the 2012 reforms, designed to resolve funding HE as a public problem. The aim is to expand the analytical focus of the social studies of markets by extending problematisation to also encapsulate accountability devices. To do so, I focus on 2012 as a point of transition, where failure of the reforms had precipitated increased government interference. In part, an analysis that extends problematisation to the ICR loans also aims to broaden the scope of literature that studies the temporality of debt. This is achieved by foregrounding the evaluation and assessment of the market as inherent to the calculative practices of the ICR loans.

Like Ossandón and Ureta's (2019) focus on problematisation, making an issue into a problem that can be tackled practically by demarcating both actors and causes, debt I suggest, is also part of problematisation as a mode of governance. Particular for collective concerns, this mode of governance is characterised by assessing areas 'as if they were markets', orienting policymaking towards the repair of market failure (ibid., p. 177). As I have shown in the previous chapter, market relations had been organised around the ICR loans by prefiguring moral and temporal obligations for debtors, namely the promise to pay at a future which has not yet arrived. What I argue in this chapter is that, it is in relation to this obligation held over students that the assessment and evaluation of the market is justified. Such evaluations are critical not only because the loans ushered in new reforms, but also because they had been speculatively calculated to produce favourable market conditions as means for conduct control.

This has been attributed to the relations that often permeate between the state and debtors. In this respect, there are three findings that may be relevant for both economic sociology and political and cultural economy. First, while issues in the design of the market had emerged, evaluating what had gone wrong had been achieved in regard to calculating non-repayment rates rather than attributed to problems with the market. This is significant because it precipitated further forms of governance such as a new regulatory body to

reorient the market towards lowering public debt as a collective concern. The second point follows from the first in that, evaluating the efficacy of the reforms had been achieved by calculating non-repayment rates. Despite the uncertainty of such practices, namely taking the possibility of future conditions that are subject to constant change, modelling repayment rates had been used in a way that guides policy. More critically, it precipitates further reforms and changes to the market. As I will show, problematising the fee regime, namely the ability of the market to respond to funding HE as a collective concern had also set out problematic student subjectivities. Tying the ability to repay to labour market earnings signified lower- and middle- income earners are less liable to repay back their loans. The third and final point then relates to the modes of governance that result from implementing a publicly backed loan solution as part of the market. While often state and student relations are understood in disciplinary forms to increase repayment (Langley, 2009), student loans must be understood as part of market relations, implemented by the state to achieve set goals. In this respect, problematising the fee regime has ushered in new forms of control, such as the OfS, which has been conceived to monitor and change both student choices and competition through regulatory powers.

Debt as a form of governance

The approach taken in this chapter seeks to extend the empirical focus of the social studies of markets literature. It does so by utilising problematisation as an analytical tool to demonstrate how accountability devices take part the problem solution relationship. Doing so is important because it reveals the entanglement of market participants as part of the collective concern. In this respect, special attention is paid to the issues debt obligations, namely the promise to pay engender. The assessment of the market, and its repair as a reflection of an ideal market form is tied to the evaluation of the ICR loans.

The focus is on the particular form of governance that the ICR loans introduced. I place this in discussion with political economy literature that studies the relationship between debtors and unregulated markets, with the disciplining and exploitation of subjects a key feature of governance (Langley, 2006, 2009). Yet within the HE market, it is the state that has exposed students to unequal forms of power, not through an unregulated market, but instead as part of organised market relations. More importantly, non-repayment is a central feature of the contractual obligations of the ICR loans, signifying that subject production cannot be

explained in narratives of the disciplining of subjects. Indeed, the ICR loans are not a traditional debt instrument, meaning any explanation of the relations it forms between the state and subjects must reflect that.

A more suitable theoretical lens can be found in cultural economy studies of debt which understands debt as a form of governance, in which debtors are formed through the obligations of debt, or the promise to pay (Adkins, 2017; Lazzarato, 2012). It is by pointing to such obligations that explicates how the subject has been worked into these arrangements. However, whereas Lazzarato (2012) takes the obligation to repay as characterised by a closing down of time, in which subjectivity is produced through a particular temporality: that of an unknown and uncertain future. Adkins (2017) points to the changing characteristics of debt, from a fixed amount to be redeemed at a known future point, to a quantity that is serviced indefinitely. It signifies the different rhythms and temporalities of debt which subjects are both organised around and constituted through. An analysis of student loan debt that applies a temporal lens is especially useful here because the terms of the loans are policy contingent meaning the amount of debt, and its calculation are subject to political and economic conditions. Like Adkins, I pay special attention to the particular infrastructure of the ICR loans, extending the discussion of the calculative practices of the loans that began in the previous chapter. The logic, calculations, and particular temporality are thus significant because they reveal an ideal subject that has been enrolled into these operations.

However, I suggest that student loan debt is an exceptional form of debt in the ways in which it has been governed as part of HE as a market for collective concern. The calculation and logic of debt are inseparable to market relations, signifying that the efficacy of the market is contingent on favourable repayment rates. I claim this because accountability devices give precise form to concerns and the conditions that need to be discharged for their resolution (Neyland et al., 2019b). In this respect, the ability to know whether or not deficit reduction is achieved on government accounts is directly related to predicted repayment rates, with any issues arising necessitating changing market conditions.

Indeed, the normative and economic expectations such devices set, are able to point to the problems that arise when obligations are not met in practice. For student loan debt, the obligations that are distributed in the market have been examined in terms of 'the promise

to pay' as a response to funding HE as a collective concern. In the analysis, I pay close attention to the identification of issues that have emerged and how they have been articulated in terms of the operations of debt. Unlike Neyland et al. (2019b) however, I extend accountability devices to include the evaluation and repair of the market, a means of drawing out how market relations have been problematised and tackled to reflect the issues debt poses for markets. Mainly because, student loan debt has a complexity that is not captured entirely in ideas of setting out normative and economic expectations for how market relations are to manifest. An analysis of student loan debt through the lens of problematisation, may reveal how policymaking had been purposefully aimed towards organising market relations as a means for guiding student and university conduct. For the analysis it involves recounting how policymakers had responded to the issues raised, the experts that emerged with the problem and an ideal market that had been articulated to remediate the problems identified.

Problematising student loan repayments

The task of locating the evaluative role student loan debt plays as part of market relations, can be best achieved by tracing issues that have been transformed into problems. It is illustrated here by examining the outcome of the reforms, as well as delving into the calculative practices that are formed of the particular terms of the ICR loans.

The most notable discrepancy between the design of the market and its actualisation in practice includes the new price mechanism. Despite devising the ICR loans as a means to ensure a price differential would act as evidence of quality of provision. Universities sought to benefit from the increased fee cap allowance, with the majority raising their tuition fees to the maximum of £9,000 per year. Importantly, it carried the effect of rendering choice and competition as a reflection of headline fees obsolete. The assumption made by BIS in the 2011 White Paper (2011) had been that increasing the fee cap would result in universities competing over students (and funding) by offering attractive tuition fees. The headline price advertised would act as a guide towards student choice. However, in the absence of distinct headline tuition fees, the normative and economic obligations on which market relations had been established were threatened. Put simply, the success of designing a liberal market which would offer the most progressive means for distributing funding, was contingent on a shared responsibility between students for making financially

meaningful choices and universities for offering the best use of public money. This distribution of student loan funding by way of market, had been devised to respond to funding HE as a collective concern. It necessarily required for the design of the market to operate as intended in order to achieve the political goals of austerity. Namely, the reduction of public spending on HE.

Failure of the reforms to produce anticipated market relations had shifted attention to evaluating the efficacy of the new market conditions to respond to the collective concern. Mainly because a consequence of universities raising fees had been much higher borrowing amounts than initially predicted.²² The IFS in a report titled *Payback time? Student debt and loan repayments* had not only taken issue with the soaring amounts of potential student debt and the effects it would carry on public accounts. But pointed to a further issue that had not been anticipated at the time of the reforms - the uncertainty surrounding its calculation:

Estimating the long-run public cost of providing student loans is important. The government needs to have an unbiased estimate of the cost of student loans, and a quantification of the uncertainty around that, if it is to understand the public finance implications of the current HE funding system, its likely financial sustainability, and how the burden of HE funding is shared between the taxpayer and graduates. Were the long-run cost of issuing student loans today to be underestimated, then a future government would have to accept higher-than-expected levels of public sector debt, or offset this by increasing taxes or cutting spending elsewhere. (Crawford et al., 2014, p. 1)

The comment in the report makes clear the centrality of calculation to evaluating the success or failure of the reforms, as a means of quantifying uncertainty. I note here also the expertise the IFS exerts over evaluating the long-run cost of issuing loans. The report cautions further government action without understanding the breadth of impact may lead to unwanted future effects. This report then not only demonstrates the wager with which the government had implemented the reforms, without a clear understanding of the implications for the public sector debt. But in attempting to reduce public spending on HE,

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²² The IFS predicted that universities would charge on average £7,500, resulting in graduate debt of around £25,000 with approximately 50% of some debt written off (Chowdry, Dearden, & Wyness, 2010). In contrast, raising the fee level to £9,000 resulted in the average student graduating with around £40,000 worth of debt (including maintenance loans) (Chowdry, Dearden, Goodman, & Jin, 2012).

the loans as a solution had merely resulted in further uncertainty over taxpayer contribution to HE.

I suggest understanding the centrality of calculating repayment rates also in context of evaluating a market based on the calculative practices of debt. Specifically, the calculus of debt is used by Adkins (2017) to refer to the temporal rhythms of repayment schedules. These are not hinged on a linear anticipation of time but on calculations of possible futures. Critically, such future possibilities are brought into the present in a way that the future comes to determine the present. While for Adkins the calculative practice of particular forms of debt should not, be separated from what debt is. Namely, securitised debt that is steered by the possibilities of debt accumulation. Instead, I claim that the calculative practices of the ICR loans are oriented towards the government goal of reducing public debt. At their inception the loans had been implemented as a means for shifting HE funding onto students.

The ability to achieve a reduction in public spending does not however occur in separation to market terms. This point is mainly evident in the 'value for money' narrative that had become prominent with the Browne report: 'Institutions will have to persuade students that the charges they put on their courses represents value for money' (2010, p. 25). While Browne argued that demonstrating value for money should be the responsibility of universities as means for steering choice, following the unanticipated outcome of the reforms 'value for money' narratives had quickly become part of public policy: 'there is an increasing emphasis and importance attached to demonstrating the value for money associated with public investment' (BIS, 2014, p. 5). These writings concede that achieving value for money is of importance because HE remains associated with public rather than private investment. It becomes the taxpayers' interest that public spending on HE is of value: '[v]alue for money in higher education is a complex and contested concept. It can be framed as anything from positive feedback from individual students, to effective consumer protection or the return on investment for public spending' (Office for Students, 2019, p. 3). Critically, value for money narratives had been framed in terms of protecting public investment and ensuring such investment is well spent.

Indeed, despite a planned feature of the ICR loans, non-repayment threatened the efficacy of the reforms measured as a reduction to public spending: 'The UK is currently

experiencing a period of considerable fiscal austerity. This has had profound implications for virtually all areas of public spending, including spending on higher education (HE). One area of government spending on HE that has been relatively less well understood to date is spending on student loans' (Crawford et al., 2014, p. 1). The report argues that ICR loans complicate government spending with the ability of the market to perform successfully cannot but be reflected in lower public debt levels, signifying that evaluating the market for present reforms is tied to calculating future levels of non-repayment. In this respect, it is crucial to point to the additional, deciding role repayment trends carry in the market. Repayment rates are able to reveal whether or not the obligation by market participants had been met, by incorporating *predicted* behaviour of subjects in terms of course and university choice.

The calculation of predicted repayment behaviour is evident in changes to student loans data, which had been impacted following legislation to remove the student cap number. To reiterate, the initial aim of the 2012 reforms had been to expand participation, with the Browne Review arguing for a 10% increase in places to allow universities to recruit and increase profits. In effect, shifting responsibility of funding onto universities by competing to recruit students and secure tuition fees. In contrast, the 2011 White Paper had proposed both to reduce the overall amount of student places and reform the manner in which these are counted. The result had been retaining the student number cap to protect the Treasury from issuing more loans than they had been able to fund.²³ In this respect, retaining the cap would reverse the market mechanisms envisioned because it signifies universities unable to freely recruit.

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²³ The 2012-13 reforms effectively split students into two groups: 'the first of which are students who fall within the population where a maximum control limit ('the student number control') or recruitment for each institution is applied. The second group are students who fall outside these limits ('the deregulated student population')' (Universities UK, 2013, p. 20). Each of these groups reciprocates to applicants' achievement as measured by the A Level qualification required to enter HE, with universities recruiting highest achievers which are exempt from state control over student numbers. The effects this had carried on universities in England has been detrimental and is not elaborated in full here. For more on the story of the student cap number see (McGettigan, 2013).

Figure 3. HE student enrolments by level of study 2012/13 to 2016/17

First year mark	er All • Mod	All Mode of study All		Country of HE provider	
	2012/13	2013/14	2014/15	2015/16	2016/17
Postgraduate					
Doctorate research	4%	4%	4%	4%	4%
Other postgraduate research	1%	1%	1%	1%	1%
Total postgraduate research	5%	5%	5%	5%	5%
Masters taught	13%	13%	13%	13%	14%
Postgraduate Certificate in Education	1%	1%	1%	1%	1%
Other postgraduate taught	4%	4%	4%	4%	4%
Total postgraduate taught	18%	19%	19%	19%	19%
Undergraduate					
First degree	66%	67%	68%	69%	70%
Foundation degree	3%	3%	2%	2%	2%
HNC/HND	1%	0%	0%	0%	0%
Professional Graduate Certificate in Education	0%	0%	0%	0%	0%
Other undergraduate	7%	6%	5%	5%	4%
Total other undergraduate	11%	9%	8%	7%	6%
Total all levels	100%	100%	100%	100%	100%

Source: Higher Education Statistical Agency (2016)

From 2014/15 the UK Chancellor removed control over student numbers, signifying institutions free to recruit as many full-time undergraduate students as they can attract. Figure 3 shows HE student enrolments by level of study from 2012/13, the year the loans had been introduced with the student cap number still in place. Of interest here specifically are undergraduate, first-degree participation numbers which at the time of the reforms were 66% out of the total HE degrees (including postgraduate taught and research). In 2014 with the removal of the fee cap, it is evident that participation rates had remained steady, increasing by one percentage point each subsequent year, thereby carrying no effect on actual recruitment levels.

Removing the cap did, however, carry disproportionate impact on the way student loans predicted repayment rates are calculated:

Our baseline model suggests that, on the assumption that the additional students are like the average existing student and go on to become like the average existing graduate, an additional 60,000 students would cost the government £1.0 billion as a result of the loans issued to them over the course of their degrees. However, it seems more likely that these additional students would have lower academic attainment, on average, than existing students, and thus they are unlikely to go on to earn the same, on average, as the existing graduate population. If all the

additional students were like graduates in the bottom half of the graduate lifetime earnings distribution, then the additional cost to the government of issuing loans to these additional 60,000 students over the course of their degrees would be £1.7 billion (Crawford et al., 2014, p. 4)

The quote above makes visible the assumptions that are integral to modelling predicted repayment figures. The lifetime behaviour of 'average graduates' is a predictor for assessing the long-run costs of issuing loans *today*. I note with this just how entangled evaluating the market and predicted repayment rates are. A central component of predicting the behaviour of graduates is academic attainment, crucial because repayment rates are tied to labour market earnings. What is made evident is that the removal of the student number cap would result in allowing lower attaining students to enter HE, thereby putting at risk the efficacy of funding HE. Starkly, the existing framework of the market had been designed to include only students who would go on to earn well in the graduate labour market because they are able to repay their loans. Within the suggested modelling framework, the additional 60,000 students should cost the government £1.0 billion, however these students are recruited from lower attaining backgrounds and thereby cost the government an almost double figure of £1.7 billion.

The removal of the student cap number prompted the IFS to produce a calculation of the long-run cost of student loans. As shown in figure 4, a degree of subsidy is calculated per student attainment in the labour market, as a signal to their ability to repay back. The subsidy is the result of providing loans to students at subsidised interest rates, with the interest payable by graduates lower than the interest the government pays for borrowing. Crucially it signifies student loans are costly to the government even if they are fully repaid (Crawford et al., 2014). The subsidy however changes in accordance to graduate income because the interest rate payable varies. For the lowest earning 10% of graduates, the estimated public cost of student loans is 93%, out of which 55% results from debt-write offs rather than interest rate subsidies. The final column adds the loan subsidy with any government grants students may be in receipt of to demonstrate total taxpayer contribution per student. The majority of difference from providing student loans stems from different lifetime earnings. In contrast to low earners, the highest 10% of earners receive a subsidy of just 1%.

Figure 4. Long-run public cost of student loans, by graduate lifetime earnings

	A۱	Total		
	Total		Of which: debt write-off	taxpayer contribution per student
All graduates	43.3%	£17,443	£10,472	£24,592
By lifetime earnings decile:				
1 (lowest earners)	93.0%	£36,481	£20,093	£44,229
2	82.1%	£32,414	£18,824	£39,654
3	72.5%	£28,759	£17,341	£35,847
4	60.7%	£24,215	£15,173	£31,014
5	48.6%	£19,504	£12,620	£26,441
6	36.2%	£14,561	£9,561	£21,437
7	24.9%	£10,069	£6,519	£17,074
8	13.6%	£5,520	£3,282	£12,626
9	5.9%	£2,421	£1,174	£9,709
10 (highest earners)	1.1%	£475	£128	£7,877

Note: Figures are for the total cost over the course of a student's degree and are in 2014 prices discounted to 2012. 'Total taxpayer contribution' includes maintenance grants, the National Scholarship Programme, HEFCE teaching grants and the subsidy on student loans. It does not include other government spending on higher education such as capital grants, research grants and grants for 'widening participation'.

Source: IFS graduate repayments model.

Source: Institute for Fiscal Studies (2014)

What the calculation of the student number cap reveals is that for student loan debt, there is an ideal subject that is determined as part of the efficacy of the market. Thus, the process of calculating predicated repayment rates involves including the social attributes that form part of the financial risk of the market. Age, gender, earning potential and socio-economic backgrounds are incorporated into calculations as predictors of risk, that define a future success rate for debt clearance. However, not only is that success rate *predicted*, but it had also been calculated in a way that seeks to capture the variability and changeability of the future as an uncertain extension of the present.

The issues that had been formed around calculations of debt are significant to the market. Evaluating the efficacy of the loans as a solution to respond to funding HE as a collective concern must be understood in terms of the uncertainty surrounding predicted repayment

rates. I claim this because the problems attributed to the loans had been used as a means to justify further reforms. In this sense, the problems of the HE market are temporally tied to the ICR loans. An uncertain future that has not yet to come, with the possibilities of that future comes to determine the present.

To explain, estimating the long-run cost of student loans is fraught with uncertainties simply because the calculation is based on assumptions. These include future earnings growth, loan take-up rates, repayment behaviour, student numbers, fee levels and the government cost of borrowing. Not to mention that the loans are policy contingent. Any change to interest rates, repayment thresholds, and the repayment period would alter this model completely as it affects the cost of the loans to the government:

The long-run public cost of student loans is very uncertain. As described in Chapter 3, to estimate this cost requires many assumptions to be made, not just about the take-up of loans, but also about the earnings and repayment behaviour of graduates decades from now. It is important to acknowledge this uncertainty, and quantify it, in order to fully appreciate the potential effect of current policy on the public finances. (Crawford et al., 2014, p. 29)

In this respect, calculating repayment rates had become a form of market expertise that is crucial because it acts as a driver to policy, despite its uncertain and speculative form. Any changes to the behaviour of students within the market, as made evident in loan take up, as well as graduate earnings potential, carries direct effect on public finances. Thereby, expertise in the HE market is directly related to the ability to quantify the uncertainty of the loans.

Both the IFS and BIS had acknowledged the problematic that is inherent to calculating future repayments:

Estimating the long-run cost of student loans is inherently difficult. It requires a model to forecast graduate income and repayment behaviour over many decades in the future. The department for Business, Innovation and Skills (BIS) has such a model, but a recent report from the House of Commons Committee of Public Accounts (2014, p. 3) reported that 'the department is unable to accurately forecast student loan repayments, and does not have a sufficient understanding of the likely future cost of non-repayment to the taxpayer'. (Crawford et al., 2014, p. 1)

The expertise over the ability to accurately predict repayment rates is contested in this report because it acts as a driver to policy. The comment by the IFS substantiates their claim

to knowledge by pointing to the inadequacies of BIS as a government department to produce a model that is able to inform public policy. Critically, it reaffirms the wager the UK government had taken with the ICR loans, which had been favoured over other funding solutions because it carried the ability to immediately resolve public deficit problems. Yet once the expected long-run cost to the taxpayer and the growing amounts of debt for students had been made apparent, the government had not retracted their decision to fund HE with loans. Nor did evaluating the debt as a result of the ICR loans produce a change in policy to revert back to government grants as the main source of funding HE. Instead, as the reports assure, the framework with which the loans had been designed to include higher attaining students could still prove viable as long as the market is repaired.

In pointing to predicted repayment rates and the ideal student that student loan debt necessitates, the issues of the HE market had been necessarily linked with a problematic subject of debt. Indeed, problematising the reforms demarcates specific subjects that might not uphold their obligations, as reflected in measuring student liability against the public concern of a greater public deficit. This is not to suggest, in a similar way to Langley (2009, p. 1406) that the unequal power relations of debt produces disciplinary subjects of debt that are made responsible for repayment because of the severe repercussions it carries. But that rather than reprimanding students for failing to act in a financially responsible way, the conditions of the market can be altered so that it works in the 'best' possible way (Nik-Khah & Mirowski, 2019). In other words, changing market conditions can produce favourable circumstances for debt repayment.

The reasons for placing such gravity on the market rather than the loan terms, despite their policy contingent nature is a result of the normative and economic terms that are integral to the funding arrangement of HE. Student loan debt must be understood in terms of how it had been budgeted on government accounts. The economic terms of the loans favoured payments today because they reduced the public deficit when the payment is made. To reiterate, any non-repayment is wiped off student accounts after 30 years. Yet to increase payments, the government could alter present market conditions. In this respect, once non-repayment issues emerged, students had been geared towards payment rather than debt clearance through market reforms. Because of the normative terms to expand participation any changes to the loan terms, specifically repayment thresholds, had been deemed

unfavourable because it puts at risk the progressive aspect of the loans. This point is made evident in the policy changes made during the lifetime of the loans solely to the repayment threshold, which had increased from £21,000 to £25,000, and then again to £27,295 (Belfield, Britton, Dearden, & Van Der Erve, 2017). An increase to the repayment threshold is favourable because it carries the effects of shielding graduates with lower income.

The documents show the tension that resulted from the design of the market, aimed towards solving funding HE as a collective concern. Built to progressively distribute funding in the form of the student loan debt, the 2012 reforms saw universities raising prices thereby rendering obsolete choice and competition. The issues that came up were not however framed in terms of the design, instead concern had shifted towards the ability of the market to achieve its goal thereby placing greater gravity on calculative practices of the ICR loans. As raised with Adkins (2017) the problem with evaluating the efficacy of the market in relation to calculations of debt is their speculative form. In this respect, the possibilities of the future come to determine and affect the present. Crucially, part of the calculative practices of the loans included quantifying a problematic subject as part of the uncertainty over repayment. The aim of demonstrating how accountability devices help shape relations of governance within markets for collective concern, with the calculative practice of the ICR loans must be understood in relation to the market. Indeed, the analysis above had mainly considered the evaluative role of the loans, in the form of calculating repayment rates. While highly contingent in form, the public and private debt the loans are responsible for resulted in a great deal of gravity placed on the ability to calculate taxpayer contribution, with assumptions on the future behaviour of students and government policy factored in.

Regulation as control

The HE reforms in England, had not then simply been evaluated as problematic, but precipitated consequential reforms. Indeed, following a public consultation, BIS released a White Paper in 2016 which set out decisions and proposals for legislation, with the aim of repairing market conditions. This would be achieved by reducing risk, and increasing choice and competition for students and universities:

Information, particularly on price and quality, is critical if the higher education market is to perform properly. Without it, providers cannot fully and accurately advertise their offerings, and

students cannot make informed decisions. But there is currently little pressure on providers to differentiate themselves in this way. This is a cause for concern as poor decisions by the student as to which course and institution to attend can prove costly not just for them but for the broader economy and the taxpayer. The market needs to be reoriented and regulated proportionately—with an explicit primary focus on the needs of students, to give them choices about where they want to study, as well as what and how. This government has therefore chosen to put choice for students at the heart of its higher education reform strategy. (Department for Business Innovation and Skills, 2016b, p. 11, emphasis added)

Despite the failed price differential, it seems the suggested model for a working market had ostensibly echoed the initial design of the 2010 reforms. The 2016 reforms had also emphasised student choice, yet rather than a liberal market envisioned in the previous reforms, here regulation played a central role. It was no longer up to students to freely choose, mainly because as the document argues, poor decisions could be costly for the broader economy and the taxpayer. It would be the government who both decides what constitutes the *best* choice and remarkably also create the conditions for students to make such choices.

For example, earlier in 2011 a commission co-chaired by Roger King, previously Vice Chancellor titled *The risks of risk-based regulation: the regulatory challenges of the higher education White Paper for England,* inquired into the then new risk-based approach of quality assurance for the HE market. Within the consultation King remarks:

In competitive market-like systems, such as that proposed in the White Paper for higher education in England, risk is regarded as two-dimensional: it provides the basis for consumer protection on the one hand (protecting against risk), while encouraging enterprise on the other (encouraging and managing risk taking). From this perspective risk loses its traditional negative connotations (of harm, hazard, and danger); rather it is to be embraced – as allowing uncertainty to be managed rationally within organisations, while recognising that risk-taking also unlocks the route to added value. (King, 2011, para. 6)

For King, the risk-based approach envisioned at the time of the 2012 reforms would allow a consumer-oriented system which determines acceptable standards of provision. This highlights the contrast from the pre-2012 system, where risk had been shifted onto students as a move away from an external definition of standard that informs the market (McGettigan, 2013). Yet a move towards a student-oriented standard of provision highlights

the role of the loans and the shift that occurred. At their inception, the loans were designed to decrease government involvement in HE, shifting responsibility over to students. However once non-repayment issues emerged students were no longer deemed capable of making suitable choices, those that would inevitably lead to 'value for money'. The approach taken by the government following the publication of the 2016 White Paper, saw the implementation of a new regulatory body, both as a means for regulating consumer and university conduct.

The OfS had been established following the Higher Education and Research Act 2017 as a new regulator for English universities, in the aim of achieving value for money (Office for Students, 2019, p. 5). As a new regulatory body, the OfS had been granted with 'oversight of the sustainability and health of the higher education sector, and as part of its role will monitor the sustainability of individual institutions. The OfS will deliver this through its checks on governance and financial sustainability on entry and through its annual monitoring of institutions' (Department for Business Innovation and Skills, 2016a, p. 6). Granting the OfS with legislative power had effectively meant a new body to govern the efficacy of public investment in HE. In this respect, part of the roles of the OfS, had been to manage teaching funding for universities by setting out terms of eligibility for registered providers (i.e. universities that charge more than £6,000 in annual fees). Prior to discussing how this is achieved in practice and what the significance of entrusting a regulator to distribute, mostly student loan funding. I briefly present the two regulatory bodies the OfS had replaced to highlight its novelty.

The powers of the OfS had been granted following the dismantling of the Office for Fair Access (OFFA) and the Higher Education Funding Council for England (HEFCE). The aim of OFFA as a previous market regulator had been to ensure widening participation as a policy of HE had been fulfilled, by requiring institutions to spend an agreed percentage of fees on certain measures to ensure the inclusion of lower-income students. As previously raised, while OFFA had been set up to determine whether a university could charge tuition fees above the £6,000 mark, it had no real legislative powers to deny any institution the higher funding level. In contrast the OfS had been endowed with legislative powers, granting funding access only for universities who are able to demonstrate outcome measures have been met. Importantly, a large part of these outcome measures require universities to

demonstrate financial stability, transparency and quality of provision. The less financial stability a provider is able to demonstrate, the more quality regulation is performed – as this poses higher risk for students who choose to study, and subsequently moves financial onus to the taxpayer.

The OfS had thus taken over the role of HEFCE to distribute (what was left) of the limited teaching funds. The role of HEFCE as the sector's previous regulator is summarised in the following paragraph 6.9b of the 2011 White Paper:

Currently, HEFCE can take action in the public interest where an institution is at risk of getting into financial difficulties. Providers that perform poorly under the new funding arrangements will primarily be those that fail to recruit enough students. Like its predecessors, the Government does not guarantee to underwrite universities and colleges. They are independent, and it is not Government's role to protect an unviable institution. However, we see a continuing role for a public body to work with institutions at risk of financial difficulties.

The role of a HE regulator at the time of implementing the loans had been quite limited because of the assumption that the financial health of individual institutions is solely dependent on their ability to recruit students. The introduction of the OfS as a new regulatory body had not only been limited to working with institutions at risk of financial difficulties but to set the terms for participating in the market.

This conception of regulatory action is similar to the one proposed by Jenle and Pallesen's (2017) which points to the aim of introducing regulatory measures, namely to reinforce consumer compliance. Within the HE market however, such measures had been extended also to control the conduct of universities because they potentially pose significant risk to the taxpayer.

In this respect, the main function of the OfS had been to allocate public funding to universities (OfS, 2018). What is important to note is that the use of public funds refers to both tuition fees from student loans as well as a teaching grant received directly from the OfS. It does away with the notion that the OfS as a regulator distributes additional government funding such as grants, as HEFCE did. Instead it points to the direct regulatory involvement that funding the HE market with loans had engendered in the aim of achieving government goals that had been justified as achieving 'value for money'. This is especially

evident in the framing of student loans as public money, a direct result of the higher taxpayer contribution that had not been anticipated as part of the reforms.

It is important to point out that while the OfS receives tuition fees provided by the SLC, it allocates student loan teaching funds in accordance with course choice. In this respect, it does not exert direct control over the distribution of funding. Instead, it changes market conditions to achieve 'desired outcomes':

The market will be regulated so that, wherever possible, choice and competition drive innovation, diversity and improvement. Where market mechanisms are not sufficient to achieve the desired outcomes, as is the case for access and participation, there will be direct regulation of providers. (Office for Students, 2018, p. 15)

A liberal market envisioned in the Browne Review led by consumer choice no longer makes sense as part of funding the sector with the ICR loans. Instead the OfS is instated to achieve set government goals, determining what constitutes appropriate choice and competition as market terms in order to mobilise universities and students as market participants.

In this regard, appropriate action universities could take to improve their market position includes increasing their attractiveness in the market by either investing in quality improvement, providing greater innovation and differentiation in their provision, or finally reducing prices. To remain financially sustainable, the OfS expects universities to maintain surplus, with a series of deficits becoming a cause for concern. This is monitored through annual reports that universities must produce to report their financial strategy, explicating a clear policy on the use of public funds. Otherwise, any indication that providers are unable to maintain financial sustainability, would result in retribution by limiting access to the HE market.

The increased form of regulation points to the significance of implementing the OfS, which had not only been setup to guard public money but govern private debt. Student loans had ushered in new forms of control that had both restricted and outlined appropriate market action for students and universities. In defining a regulatory framework for the correct behaviour of market participants an explicit form of conduct control had been set. It seems that the ability to exert such control had been purposefully introduced as a means for guarding the taxpayer, because the market had been set up to resolve funding HE as a collective concern. While for students, the obligations for the market had been inscribed in

the terms of the loans, for universities, because such obligations failed to realise, necessitated an external market regulator.

The OfS then is a regulatory body implemented as a means for exerting control over the market. Similar to Jenle and Pallesen (2017) who discuss the ways governance is often inscribed in the design of markets, arguing that part of a market arrangement is regulating consumer conduct by disciplining market participants. Certain aspects of the market design had, like in the HE market, produced specific expectations for how market participants are to behave, with various infrastructure set in place to maximise consumer control.

The authors notably point to the direct and explicit forms of conduct control which had involved carefully organising and placing the consumer as central to the arrangement. In this sense, while the aim of the OfS had mainly been framed as guarding the interests of students: '[t]here is a need for a simple, less bureaucratic and less expensive system of regulation, that explicitly champions the student, employer and taxpayer interest in ensuring value for their investment in higher education' (Department for Business Innovation and Skills, 2015b, p. 3). What the consultation makes clear is that regulation within HE is mainly about ensuring public money is 'well spent', rather than protecting student interest. Within this regulatory framework accountability for value for money as a result of the ICR loans is also extended to the taxpayer, and consequently employers. The introduction of employers as accountable actors is an outcome of student choices directly connected with labour market outcomes. The OfS 'work[s] with employers and with regional and national industry representatives to ensure that student choices are aligned with current and future needs for higher level skills' (Office for Students, 2018, p. 20). The loans in effect had ushered in a tightening between the labour market and the HE sector, with the OfS acting to oversee and monitor student choices. Similarly to Jenle and Pallesen's (2017) governance as means for control, the introduction of the OfS as a regulator includes an attempt to change the conditions of the market and configuring students to practically address the current problems of the market.

In this respect, the OfS not only monitors the use of public money, but has the power to act to remediate market mechanisms if the market arrangement in place is to function to achieve value for money:

Our regulation encourages autonomous providers to respond to students' needs. Choice by students, about what and where to study, lead providers to improve the teaching, support and learning resources – and therefore the value for money – that they offer. We work to ensure that these choices are well-informed. But we intervene when these choices alone do not secure value for money. (Office for Students, 2019, p. 4)

The ambiguity with which the OfS use the term 'value for money' to define market mechanisms such as choice and competition provides an opening to changing market conditions in accordance with their own standards. The post-2012 market arrangement had been designed to be led by student choice. Instead the regulatory control over the market illustrates how governance is achieved by demarcating the ways problems, here non repayment as a result of poor choices are to be practically tackled.

A final case in point is the latest review of higher education commissioned by the Conservative government, led by a former equities broker - Philip Augar. The reliance on financial expertise to inform government policy is quite telling of the centrality the loans had taken as part of the market. The aim of the proposal is to set out a new financially viable route towards post-18 education which places an emphasis on the required skills of the economy. In this respect, Augar explicitly outlines the issues facing the sector in terms of mounting student debt that carry personal consequences for graduates and economic consequences for the state (Augar, 2019, p. 65). As with the OfS the problematic market outcome is increased indebtedness, explicating the need for governing and direct interference:

The idea of a market in tertiary education has been a defining characteristic of English policy since 1998. We believe that competition between providers has an important role to play in creating choice for students but that on its own it cannot deliver a full spectrum of social, economic and cultural benefits. With no steer from government, the outcome is likely to be haphazard. (Augar, 2019, p. 8)

Again, emphasis is placed on competition and choice as market terms despite failure of the 2012 reforms to both achieve a liberal market envisioned and consequentially resulted in unrepayable amounts of debt. While for Augar, market outcomes are framed in terms of social, economic and cultural benefits, as I have shown what distinguishes the OfS from previous market actors is a clearly defined aim and means to achieve value for money.

Interestingly, the voice of UUK as a market actor that had taken part in influencing the new regulatory agenda had been largely absent from this debate. This is not only reflected in the consultations and briefings published around the establishment of the OfS as a market regulator, but in the framing of higher education as a 'core strategic asset' by the UUK which essentially monetises the value of UK universities. Indeed, not much opposition was voiced to the increase in regulatory agenda and crude interference with the autonomy of institutions. It seems the only objection voiced had been to the ability of the OfS to sanction universities for financial instability. In a letter ahead of the proposed research bill, UUK congratulates extending the right of appeal for universities to challenge the decisions of the OfS under reasonable circumstances (Universities UK, 2017). It seems at the time UUK had been more occupied with retaining the amount of funding that had been promised by the government, in order to decrease risk for individual universities rather than seeking changes to market terms.

This section has critically demonstrated the ways problematisation of the HE reforms had precipitated new regulatory forms. In the process of remediating the possibility of non-repayment, the OfS had been set up to define appropriate market action for both universities and students. What I have suggested in this section is the forms of control over both students and universities are ushered in when public money in the form of loans is at stake. Market mechanisms alone are no longer suitable for responding to funding HE as a collective concern and instead, necessitate external governance. This is mainly evident in the 'value for money' narrative that results from the hybrid funding solution the loans represent, in which both private and public forms of debt are involved. Within the HE market regulatory power is exerted over taxpayer contribution and private debts.

Conclusion

The case of funding the HE market with a hybrid public and private solution such as the ICR loans engenders increased forms of governance. Choice and competition are no longer attributed to a liberal market model where quality of provision is defined by price, but instead, necessitates an external regulatory body to guard 'value for money' for both the taxpayer and students. Attending to the ways experts problematise obligations that entangle students and universities in market relations sheds light on the assessment of the loans, and the subjectivities that become part of the definition of the problem. Critically, as I

have shown, these assessments have not resulted in the government reverting back to the previous funding system but instead precipitated further reforms.

Tracing the problematisation of the reforms points towards the measures taken by the government to mitigate the unanticipated increase in student loan borrowing. An increase in governance, here introducing further reforms and more significantly implementing a market regulator is effectively implemented to govern the efficacy of public investment in HE. While political economy studies of debt have discussed the effects of government interference to increase repayment, this literature often explains governance in terms of self-disciplined subjects or exploitative unregulated markets (Langley, 2009; Lazzarato, 2009). As this and the preceding chapter have sought to demonstrate, the HE market forms a unique relationship with the state in that it is steered towards achieving defined government goals. In implementing the OfS as a market regulator allows the government further control over the conduct of both universities and students. This is achieved not by disciplining subjects to make better choices, but instead by defining appropriate market action. In this respect, utilising the infrastructure of the market to control conduct is similar to the work of Jenle and Pallesen (2017). Within the HE market however, it is both universities-as-providers and students-as-consumers that are governed because they are both liable for an increase in taxpayer contribution.

The moral and temporal obligations the ICR loans distribute for market participants provide a closer lens to the measurement of the efficacy of the market arrangement to respond to the collective concern. Despite non-repayment constituting a central term of the loans, public liability as a consequence of the loans' contractual terms puts at risk the ability of the current market arrangement to reduce public spending on HE in the long run. With any non-repayment shifted to the taxpayer, the moral obligation to repay is measured through predicted repayment rates. In this respect, the calculative practice of the loans is significant because evaluating future repayment rates denotes that expertise in the HE market is necessarily contingent on economic knowledge.

But also, calculating *predicted* repayment rates is used to measure the success of the current market arrangement. This point is important because it places problematisation as a means for assessing the current market arrangement against ideal market forms. Ossandón and Ureta (2019) have noted similar instances, in their account of the relation between

expertise and problematisation. They convincingly argue that problematisation both demonstrates the reworking of problems as well as the experts that emerge. This is true in the case of the HE market. Replacing direct state funding with a publicly backed loan solution did not resolve public spending on HE and instead developed a new problem – non repayment. And also, the IFS had been central to evaluating the efficacy of the 2012 reforms in terms of the loans.

However, problematisation is also central to the ICR loans as an accountability device. The assessment of repayment rates reveals the calculative practices of the loans that include student attributes of risk. In so doing, it employs a specific temporality where the uncertainty of the future must be quantified to capture the variability and changeability of the future as an extension of the present. Student subjectivities is used above all to determine the extent of taxpayer contribution to manage and generate change. This is achieved in accordance with graduate attainment in the labour market, as well as an attempt to account for future government policy. The inclusion of debtor attributes as part of calculative practices is central to Adkins (2017) analysis of securitisation, where changing repayment schedules by calculating future possibilities changes subject temporalities. Similarly, calculating repayment rates is achieved to induce further payments, however within the HE market this is achieved by changing market conditions.

Discussion

Problematising debt obligations as market relations

Introduction

This thesis has detailed the governing of a market-based solution imposed on the HE sector to distribute student loan debt. As part of austerity governance, problematising the public deficit has led to shifting funding responsibilities to universities, students and the taxpayer in the form of private and public debt. It is the particular infrastructure the loans form in the market that is the key finding of this thesis. The obligation to repay becomes a defining feature of the HE market arrangement, entangling universities and students in new market relations. Crucially, it is these obligations that are integral to what requires repair. The unique debt the loans are responsible for precipitate increased forms of governing because the market is assessed and evaluated against calculative practices. In this respect, this thesis advances political and cultural economy studies of debt in terms of the heuristic evaluation of indebtedness, as developed through the social studies of markets conceptual framework to evaluate student loans as methodologically connected to market making.

The contributions are presented towards political and cultural economy studies of debt and the social studies of markets literature. This will be discussed in terms of the empirical content, as well as the theoretical and methodological approach. I begin by reiterating the empirical and theoretical assumptions challenged, to demonstrate that student loan debt had not been studied in a manner that accounts for the obligations it sets as part of market relations. In adapting markets for collective concerns (Frankel et al., 2019) and accountability devices (Neyland et al., 2019b) to the analysis, demonstrates the particular forms of market activity organised around the ICR loans and the way that it is governed by the state. This literature is suitable to show how experts mobilise market mechanisms as efficient means for achieving state defined goals. However, for the UK government the market alone would have been insufficient to respond to the political, economic and normative problems to reduce public expenditure on HE, necessitating a progressive funding solution such as the ICR loans. In this respect, I present the complex form of debt student loans represent, as both a public and private debt, outlining the particular obligations it sets as part of market relations.

Problematisation (Callon, 1980) is a central conceptual lens adapted to show the entanglement of students, universities and the taxpayer in funding HE as a collective concern. Following the ways experts problematise issues and mark out a suitable path for their resolution, reveals how concerns are sustained and used for attaining political goals. As part of the HE market, problematisation (Ossandón & Ureta, 2019) refers to the evaluation and assessment of problems against ideal market forms. However, within the HE market, evaluation is achieved against the moral and temporal obligations of the ICR loans. In this respect, problematisation demonstrates the problems that arise when debt obligations have not been met. This is presented in conjunction with the infrastructure of debt, namely the calculative practices and contractual terms of the loans (Adkins, 2017). By placing the obligation to repay as central to market mechanisms, demonstrates the increased forms of control the loans had ushered against problematic subjectivities.

Student loans, the market and expertise

Governing with accountability devices

The HE market had been organised in response to the political climate of austerity, with student loan debt a viable means of attaining state goals. The theoretical novelty of the approach has taken inspiration from cultural economy studies of debt alongside the social studies of markets. It is from this theoretical intersection that market activity can be understood as part of debt and state relations, challenging the assumptions to extend the often held views of particular authors who share interest with this approach (Langley, 2009; Soederberg, 2014a). The social studies of markets literature (Frankel et al., 2019; Jenle & Pallesen, 2017; Neyland et al., 2019b) has been applied here to further understanding of the specific features of student loan debt and the consequences it carries for debtors as part of the market solution to distribute funding. Namely, problematising the public deficit established the path to reduce public spending on HE as a collective concern, with the ICR loans devised as a progressive solution. In this respect, the implications of funding HE with a publicly backed solution such as the ICR loans are increased forms of governance and control over the sector.

Student loan debt has been chosen as an empirical object of analysis because it challenges assumptions that the market mode of arranging the sector necessitates a move away from public, or rather state forms of funding (Brown & Carasso, 2013). This is despite recognition

that private forms of funding have been a central aspect of marketisation, attributed to the atrophying of HE as a public good. Further, as I have suggested the public and private form that student loan debt represents complicate a straightforward narrative between the market and the state. Marxist approaches to debt have placed emphasis on state market relations to explain state reliance on the market as the best means for distributing resources (Lazzarato, 2012; Roberts & Soederberg, 2014; Soederberg, 2013, 2014a). It signifies indebtedness can be readily applied to explain the exploitation of debtors by market forces in absence of the state. Similarly, Foucauldian-inspired studies such as Paul Langley's (2006, 2009) tend to overlook specific forms of market activity that cannot be explained by disciplining subjects' narratives in unregulated markets. The unregulated market and state in retreat that underpins such explanations do not neatly apply to English HE, or the loan-based solution of the ICR loans.

An alternative approach to studying student loan debt and the HE market that places emphasis on marketisation processes within traditionally non market fields, has been highlighted by a strand of economic sociology. 'Markets for collective concern' (Frankel et al., 2019) is an analytical object which broadly incapsulates instances where markets are simultaneously policy instruments that have been implemented because they are believed to offer the best possible solution to collective problems. The underlying position of such work is the organised character of markets that are tied to the state through a relation of governance. Applying this lens makes visible the particular form of governance that is inscribed into the design (Jenle & Pallesen, 2017, p. 381).

As a market for collective concern, the HE market has been designed to offer an alternative means to bureaucratic distribution of funds. Yet also uphold the normative terms of the Robbins report (1963), which elevated widening participation to a policy. This is important because it set widening participation and a reduction of public expenditure as normative and economic terms that are inscribed into the design of the loans as a funding solution in the HE market. In this respect, private fees alone could not achieve the goals set out in the Browne review (2010) which considered several funding solutions such as a lifetime graduate tax. Rather, the HE market may be seen as the outcome of governance, a response to austerity politics designed as an efficient means for distributing funding.

Moreover, studying the HE market as a governed arrangement, enabled highlighting the forms of expertise that assumed that markets offer the best means for towards achieving set goals. As I have shown, expertise played an important role for the HE market, with John Browne (2010) a businessman and Phillip Augar (2019) a city banker, shaping the type of solutions offered, alongside the IFS generating crucial economic knowledge to evaluate the loans. The choice of experts to inform policymaking is quite telling of the centrality of the loans to achieve state defined goals against the type of market constructed.

From the social studies of markets literature I have taken following how policymakers understand markets to require continuous organisation, or 'evaluation, diagnosis, design and repair' (Frankel et al., 2019, p. 2). Of interest here is the ideal market form against which the market is evaluated because it denotes the type of market constructed. Failure of the reforms to produce anticipated market relations had mainly resulted in greater taxpayer contribution because a consequence of universities raising fees had been much higher borrowing amounts than initially predicted. Despite devising the ICR loans as a means to ensure a price differential would act as evidence of quality of provision, universities sought to benefit from the increased fee cap allowance, with the majority raising their tuition fees to the maximum of £9,000 per year. It carried the effect of rendering choice and competition as a reflection of headline fees obsolete.

The central evaluation against which an ideal market has been assessed is the ability of the market to achieve 'value for money', for both taxpayer and students because HE is primarily a public rather than private investment. This is important because the particular form the ICR loans take in the market result in increased governance. Within the analysis, an increase in taxpayer contribution signified greater public liability over funding HE, putting at risk the ability of the current market arrangement to reduce public spending on HE in the long run. Gearing the market towards achieving a reduction in public spending does not however occur in separation to market terms. While the loans are policy contingent, the normative and economic terms form part of the market solution, signifies that changing the terms of the loans, is a less favourable solution to altering market conditions because it puts at risk the favourably progressive solution they represent.

In this respect, governing the HE market towards achieving 'value for money' as a goal of the market leads to control of conduct over both universities and students. In order to mitigate the increase in taxpayer contribution, the OfS had been introduced as a regulatory body mainly to guard the taxpayer by acting to oversee and monitor student choice.

Similarly, the OfS denotes appropriate action universities could take to improve their market position including increasing their attractiveness in the market by either investing in quality improvement, providing greater innovation and differentiation in their provision, or finally reducing prices. In this respect, choice and competition are no longer attributed to a liberal market model where quality of provision is defined by price, but instead, necessitates an external regulatory body to guard 'value for money' for both the taxpayer and students.

Market relations as debt obligations

Having stressed the market mechanisms above, I return to student loan debt as this thesis' main empirical object. As pointed to previously, the ICR loans are different from private consumer loans, forming particular obligations because non-repayment of debt is a central aspect of the loan terms. In this respect, 'accountability devices' (Neyland et al., 2019b) provides a useful analytical lens to this thesis because it furthers understanding of student loan debt and its entanglement with students in the market. Accountability devices not only distribute responsibility but point to the problems that arise when normative and economic expectations for how market relations should manifest are not met. The following then, lays out the contributions of this thesis in reference to accountability devices, marking out the novelty of this approach as well as the literature this may be of interest to.

The term 'accountability device' is a relatively novel concept used to explain the process in which markets are composed not only as economic but normative arrangements, organising participants into market relations such as choice or competition (Neyland et al., 2019b). Of interest here, is the role of such devices within markets for collective concern, drawing attention to the problems that arise when economic and normative obligations have not been met. Within the analysis, the 2010 reforms had been studied in the context of 2008 financial crash, with public spending and HE departmental funding specifically targeted as a concern. Implementing the ICR loans as a replacement of traditional grant funding is important as it illustrates the political and ideological underpinning of austerity governance, which allocated responsibility of lowering public spending to the taxpayer – and of course the student. It marked success and failure of the reforms through the student's ability to uphold the obligations set by the terms of the loans.

More specifically, studying the ICR loans as an accountability device, enabled drawing out the moral, political, temporal and power dynamics that often permeate debt (Adkins, 2017; Guyer, 2012; Soederberg, 2014b; Zaloom, 2020), but to do so as part of market relations. In the planning phase of the reforms, shifting financial responsibility towards students in the form of debt demonstrates the power and moral relations that had been formed between the government and students. Individual success and failure to choose correctly had been measured on the ability of the graduate to repay back their debt. Failure to do so becomes problematic as it places greater financial onus on the taxpayer.

The obligations of debt are not only transferred onto students but become justifications for further market reforms. In this respect, while it is often suggested a solution such as the ICR loans offers a fair and progressive means for sharing the cost of funding between the taxpayer and students, failure to repay simply prompts the government to alter the conditions of the market to induce more payment. The success of designing a liberal market to offer the most progressive means for distributing resources was contingent on a shared responsibility between students to make financially meaningful choices and universities to offer the best value for public money. In practice, the implementation of the loans in 2012 saw universities raising prices thereby rendering choice and competition obsolete. With unanticipated levels of public debt as a result of issuing student loans, concern over the feasibility of the market arrangement to reduce public expenditure prompted the government to alter market conditions to induce repayment.

From Neyland et al. (2019b) I have taken noting the particular distributions of responsibility involved, as a means of studying how the reforms and market participants are assessed. In the case of the ICR loans, calculating repayment alongside the terms of the loans had been central to assess whether obligations were met in practice, yet also a means of measuring the success or failure of the reforms. Importantly, it was not only the normative and economic obligations that had been assessed, namely the moral and economic terms of repayment. The relationship that had formed between the government and debtors can also be viewed as political, signifying the success of the reforms tied to achieving political goals. This point is similar to the one made by Jenle and Pallesen (2017) who demonstrate how the objective of markets is often stated in economic terms, and reworked to achieve non-economic goals.

In sum, the findings here are relevant for studies in political and cultural economy, as well as the social studies of market litearture. In placing student loans debt as an object of study within the novel concepts of markets for collective concerns and accountability devices, I have shown how student loans have ushered in increased forms of governance as part of market activity towards achieving set goals. Failure of the reforms to produce market mechanisms anticipated at the design stage had led to unplanned public debt, calling for increased regulation to protect the taxpayer's contribution to HE. Crucially, failure of the reforms had precipitated further evaluation and repair, against the ability of the market to achieve 'value for money' ushering in new regulatory bodies. The Office for Students (OfS) is one such example that has been conceived to monitor and change both student choices and university competition. In this respect, the inquiry advances political and cultural economy literature, specifically Foucauldian-inspired studies of debt (Langley, 2009, 2020) that tend to subject the governance of debtors to disciplining subjects' narratives in unregulated markets. Instead, the particular features of student loan debt and the consequences it carries for debtors, must be understood as part of the specific forms of market activity. The analysis has shown how debt obligations come to define market relations. Governance through austerity politics had been part of justifying the loans as a solution to fund HE, because of the specific accounting methods employed by the Treasury - a means of reducing public expenditure. Crucially, the moral, temporal and power dynamics that are part of loan-

through austerity politics had been part of justifying the loans as a solution to fund HE, because of the specific accounting methods employed by the Treasury - a means of reducing public expenditure. Crucially, the moral, temporal and power dynamics that are part of loans based solutions, need to be considered in terms of how they prefigure participants into market relations. In the HE market, they signify who is accountable to repay and on what terms, and also what counts as a valuable, responsible choice as measured by predicted repayment rates. In this sense, the inquiry extends research that has paid attention to the power or moral dynamics that debt forms as constitutive of the production of subjectivities as a result of state interference (Lazzarato, 2009, 2012; Roberts & Soederberg, 2014; Soederberg, 2005), to the ways these organise participants in market relations.

The political and economic reworking of problems

Governing the HE market as a collective concern prompts to reflect on the problematisation of the particular concern and the devices that are part of the solution. This issue seems crucial when studying matters of 'public concern' because the particular composition of market relations and the normative and economic terms that are inscribed in the design are

the result of that framing. Who and what are problematised become profoundly impacted by the infrastructure that is part of the problem-solution relationship within markets. The following then discusses problematisation as a mode of governance, which can also be understood as a method for exerting control.

Problematisation can be used to understand the ways issue become a problem, with actors that define the nature of the problem, proposing obligatory courses of action to achieve its resolution (Callon, 1980, 1984). When applied to markets, work within markets for collective concern have emphasised the process in which public problems are delegated to experts, put in charge of market design with causes and aims that can be practically tackled (Jenle & Pallesen, 2017; Ossandón & Ureta, 2019). Inquiring into the collective concern of the HE market, has pointed to the political reworking of austerity governance. As the analysis showed, staging the reforms had been achieved to respond to the issues that emerged as a result of the financial crisis. With HE funding targeted specifically, a reduction of public expenditure had been supplemented by issuing loans to replace the teaching grant. Austerity governance had politicised public funding as a concern to be resolved by way of market. Crucially it determined the design of the market, with the loans distributing responsibility between students, to make financially meaningful choices, and universities to offer the best use of public money.

Furthermore, emphasising the infrastructure of the problematic through market devices has pointed to the entanglement of participants within the problem-solution relationship. In this respect, Neyland et al. (2019b) have been incredibly useful for pointing to the 'messiness of outcomes', namely the problems that arise when normative and economic expectations have not been met. More specifically, the relationship formed between the public, students, and the government, deemed them liable for the success of achieving the political goals of austerity. Despite a planned feature of the ICR loans, non-repayment threatened the efficacy of the reforms measured as a reduction to public spending. Assessing the market in terms of its ability to achieve value for money was complicated due to the convoluted accounting techniques. In this respect, the ability of the market to perform successfully was reflected in lowering public debt levels, in which evaluating the market is tied to calculating future levels of non-repayment. In this respect, calculating repayment rates signified all market actors liable: taxpayers, universities and students.

Noting the problematisation of objectives or concerns themselves, I suggest is important as it illustrates the terms, whether political, economic or normative, by which concerns are constructed and, in this case, politically motivated. While a reworking of problems as politically inspired has been addressed in this literature, the emphasis has often remained on expertise.

Further, I have approached student loan debt in terms of the temporal obligations it holds for subjects, because nonrepayment becomes problematic in the market. From Adkins (2017) I have taken, first the particular form of student loan debt, its logic and calculations, and second, the particular subject that can maintain the schedules of payment. As already noted, student loan debt is policy contingent, meaning the terms of repayment can be changed at the discrepancy of the government. Further, due to its budgeting on government accounts, payments are preferred because they reduce the public deficit, in contrast to any loss that is recorded only when it occurs. Once the reforms had been implemented, evaluating what had gone wrong had been achieved in regard to calculating non-repayment rates rather than attributed to problems with planning. In this respect modelling repayment rates had been established in a way that purposefully problematised student subjectivities, namely, lower- and middle- income earners who are less liable to repay back their loans. This is significant because it precipitated further forms of governance such as a new regulatory body to reorient the market in achieving lowering public debt as a collective concern.

In this respect, the ICR loans have ushered in modes of control in the form of new regulatory bodies over the conduct of both universities and students. The OfS is significant because it was setup to guard public money and govern private debt by changing the conditions of the market and configuring students and universities to practically address the current problems of the market. Governance is achieved by demarcating the ways problems, non-repayment as a result of poor choices is to be practically tackled by exerting regulatory control over the market. In similar to the regulatory action proposed by Jenle and Pallesen's (2017) which points to the aim of introducing regulatory measures, namely to reinforce consumer compliance. The introduction of the OfS within the HE market has been extended to control the conduct of universities as well as students because they potentially pose significant risk to the taxpayer.

The findings here are relevant for economic sociology, namely the social studies of market literature, and research into the temporalities of debt. The analysis has shown that debt forms a central part of the problem solution relationship when implementing markets to resolve collective concerns. An ideological reworking of the problems as part of austerity governance, had been central to the fee-loan regime and the design of the market. It signified reducing public expenditure as a collective concern, tying market participants to the ability of the loan market arrangement to achieve a reduction in public expenditure. Crucially, the calculative practices of the loans is fundamental here as it assesses the efficacy of the current market, becoming a prompt for further reforms. In this sense, the analysis both confirms and extends recent research into markets for collective concern (Frankel et al., 2019), as it both demonstrates the ways markets are implemented towards achieving set government goals, however the loans were an integral device to address funding HE as a collective concern.

The particular form of debt creates calculative practices that measure the ability of the market to respond to collective concerns. Student loan repayment rates became central to evaluating the efficacy of the reforms because of the government's commitment to reduce public expenditure. It necessarily involved specific subjectivities because the ability to repay was tied to labour market outcomes, signifying lower attaining graduates would accumulate greater debt over their working lives. The analysis then both confirms and extends research into the temporalities of debt (Adkins, 2017) as it demonstrates the ways subjectivities are entangled into the calculative practices of the loans, however these are achieved as part of the evaluation and assessment of the market.

Further, the loans play a coordinating role to distribute obligations between participants giving precise form to concerns. The moral and temporal obligations the ICR loans distribute provide a closer lens to the measurement of the efficacy of the market arrangement to respond to the collective concern. The loans not only entangle participants in particular market relations, but obligations are measured through calculations of predicted repayment rates against the public concern of a greater public deficit. In this respect, this thesis adds empirical depth to accountability devices (Neyland et al., 2019b), as it has shown that the ICR loans entangle market participants in particular market relations setting the conditions that need to be discharged to respond to collective concerns.

The methodological approach taken in conjunction with work in STS hopes to demonstrate the applicability of documents as methodological tools to research market devices. While documents have often been perceived within STS-inspired research as 'the most despised of all ethnographic subjects' (Latour, 1988, p. 54), this thesis has presented that documents provide an essential source for understanding how market infrastructures form part of governance more generally. In this sense, this research is closer to the study by Ossandón and Ureta (2019) which analyse the problematisation of market-based policies by experts in the health care and public transport sectors in Chile, to demonstrate governing through market failures. Furthermore, for this thesis, policy documents have provided a focus on market devices from a different angle, to study the application of expert knowledge as part of market formation processes. In this respect, this thesis extends the methodological approach within STS-inspired research to study market devices by utilising documents as tools for analysis.

Conclusion

This chapter has presented the main contributions towards political and cultural economy studies of debt and the social studies of markets literature. The first contribution has been made by demonstrating how debt obligations come to define market relations, offering a novel lens to the ways market participants are prefigured by repayment terms. The unique form of debt the ICR loan is responsible for entangles participants in choice and competition as market relations. The obligation to repay is intricately designed into the market with individual success or failure to choose correctly becoming a measure for taxpayer contribution. This has been discussed against political and cultural economy studies of debt, mainly Marxist literature (Lazzarato, 2012; Roberts & Soederberg, 2014; Soederberg, 2005, 2014b) that takes debt as a general constitutive relation thereby always reproducing the same relations of exploitation. Critically, because debt obligations organise participants into market relations, they become justifications for further reforms.

The second contribution advances the political and cultural economy literature by studying debt through the conceptual lens of markets for collective concerns and accountability devices (Frankel et al., 2019; Neyland et al., 2019b). These concepts have been shown to enable a more appropriate lens to the study of loans as part of the HE market, because they overcome the binary opposition between the state and the market that is found within

political economy studies of debt. This is especially notable in Foucauldian-tinged studies of governing debt such as Paul Langley's (2006, 2009), which does not pay heed to the particular forms of market activity that cannot be attributed to disciplining subjects in unregulated markets. As I have shown, the ICR loans had precipitated increased forms of governance over the HE market in the form of regulatory bodies. In order to mitigate the ability of the market to achieve a reduction in public spending on HE, the government introduced the OfS as a regulatory body to monitor and change both student choices and university competition. The particular forms of the ICR loans is crucial here to make sense of the modes of governance present and the entanglement of debtors within market relations.

Third, adapting Callon's (1980, 1984) problematisation to the ICR loans and marketisation of HE demonstrates how the UK government's commitment to austerity has been politically reworked into an economic problem that is to be resolved via debt-based solutions. The goal to reduce the public deficit had been justified as part of fiscal tightening policies in response to the 2008 financial crisis. Critically, this objective had come to define the terms of the loans and the efficacy of the market. It signified the taxpayer liable for the efficacy of the market arrangement, as measured by repayment rates on the loans. In this respect, the analysis both confirms and extends recent research into markets for collective concern, analysing the ways debt forms part of the problem solution relationship when implementing markets to resolve collective problems (Frankel et al., 2019).

Moreover, a study of problematisation as part of debt entanglements both confirms and extends research into the temporalities of debt (Adkins, 2008, 2017). As I have shown, the calculative practices of the ICR loans comprised of specific student subjectivities, namely lower attaining students that put at risk the efficacy of the loans as a solution. Despite the policy contingent nature of the loans, which enabled the government to change the loan terms, it put at risk the progressive aspect of the loans. In this respect, inducing payments today had been achieved by changing the market design. Paying attention to the calculative practices of debt must be achieved by noting the ways the market is evaluated and assessed. Within the HE market, 'value for money' narratives had prompted increased regulatory forms to mitigate the ability of the market to respond to the growing public deficit. In this respect, the analysis is closer to Jenle and Pallesen's (2017) which points to the governance of consumer conduct as part of the framework of the market.

The fourth and final contribution this thesis has made has been to further extend the methodological approach within STS-inspired research to study market devices. While the use of documents within this literature is viewed with some disdain (see Latour, 1988), as I have demonstrated they are a crucial source for studying market making. The expert knowledge established as part of market formation has shown the centrality of the loans to market evaluations. Economic knowledge mobilised by the IFS, namely calculating repayment rates had become a source of expertise, revealing how market infrastructures form part of governance. While there is a tendency to study market devices in terms of the living, materiality as products of its design (Breslau, 2013). Documents had been proven valuable for this study because they had been able to reveal the 'messiness of outcomes', a result of the calculative practice of the loans as a key measurement for the efficacy of the market.

Conclusion

This thesis has followed the process of market making from a governance perspective, emphasising the practices of policymakers to evaluate and assess the market, in particular the role of the ICR loans in prefiguring market relations. Having traced the problems that have emerged from imposing a loan-based solution, I found it was reworked to the perceived problem of funding HE as a collective concern. In doing so, it has sought to explore what can be learnt from replacing a publicly funded sector with a publicly backed funding solution, such as the ICR loans, and the consequences this had and continues to have for students, universities and the taxpayer. In this respect, the aim of the thesis has been to shed light on the ICR loans, a unique funding solution that is central to the HE market, which has, as yet escaped empirical scrutiny in a way that considers its political and economic circumstances. By accomplishing this, the analysis presented here adds much needed empirical depth to an object of study that has not received attention in the UK, despite nearly a decade since the fee-loan regime was implemented.

Indeed, a decade of policymaking justified in response to the 'concerns' of framing public deficits and national debts as shared collective problems. This thesis has focused its attention to the policy solutions offered to solve the funding problems austerity created, a means of responding to problematisation around this form of governance.

It has been by placing the thesis against austerity, that an intersection between the loans and the organisation of the HE market becomes exceptionally notable, with policymaking aimed towards remediating the problems the loans engender. The use of document analysis then, is a methodological approach that has been shown relevant to make visible the solutions and problems that are central to bureaucratic practices. In arguing for the potential that is afforded by being attentive to the policies, discourse and narrative that documents reveal, has provided insight into how the market arrangement had been organised, and the problems that had been framed in order to induce further reforms.

The main points that studying student loan debt as part of the HE market has raised are discussed here to connect them to wider contribution themes and issues in the study of debt in political and cultural economy literatures. Principally, the analysis demonstrated the ways debt obligations come to define market relations. Moreover, how to inform future studies of debt in markets that can utilise the novel concepts of markets for collective

concerns and accountability devices to offer a richer account of how the entanglements of debt engender a 'messiness of outcomes'. In methodological terms, the use of documents offers practical research tools for a study of market devices, alongside other qualitative methods. The chapter ends by outlining the contribution of this thesis to the cultural economy literature with respect to the pertinence of problematisation as an analytical orientation to a study of market devices. Specifically, how extending problematisation to encapsulate market participants may demonstrate that calculative practices do not only rely on specific subjectivities. In closing, I consider how a broader lens on debt and markets may be applied for further research.

The market relations of student loan debt

The moral, power and temporal dynamics of the ICR loans

One of the central claims that this thesis has made, is that debt obligations are part of market activity and must be contextualised as such. Building on particular insights from social studies of markets literature alongside economic and cultural economy studies of debt, I have explored the ways in which the ICR loans have prefigured students and universities in particular market relations. The almost complete removal of the state grant and its replacement with a unique type of funding solution, a publicly backed yet privately funded loan arrangement enabled price-based competition and choice to take place in a way that fees alone could not. I stress this point because the centrality of the loans to marketisation of HE has often been overlooked in literature that studies HE policy, with the assumption that the market mode of organising HE necessitates private forms of fees (Holmwood, 2011).

This point is important for understanding that student loan debt has been justified as the most progressive solution as it responds to both widening participation and the economic constraints of funding HE. Crucially it becomes an entry point for participating in the market. This is not to suggest that debt as a result from the ICR loans is the sole type of debt that students may take to participate in HE. This thesis has certainly not covered all of these. Instead, its focus has been on the particular market relations that are formed between the state and market participants.

What is relevant are the ways in which obligations of debt do not sit peripherally to market relations, but instead come to permeate them. The moral relations of debt that tie market actors have been revealed in government policies. For example, the way in which legislative frames define success and failure for students, by tying the ability to repay to labour market earnings. In a manner akin to Zaloom (2020) I have shown that the moral and power relations of the loans can be located within governmental policies and financial tools which set out responsible action. In this respect, the reforms had been organised to give shape and set expectations for how students should navigate responsibilities. Choice had been set up as a means for both shifting financial responsibility to students and in doing so making students accountable for their own futures. In a similar way, the reduction of funding from the Treasury and its replacement with the ICR loans had shifted responsibility of securing funding onto universities, by competing over student recruitment.

The claim that debt obligations form part of market relations challenges the assumption present in political economy studies of debt, namely those that have taken a Marxist approach (Lazzarato, 2012; Roberts & Soederberg, 2014; Soederberg, 2005, 2014b). This literature critiques state reliance for distributing resources through unregulated markets because it necessarily results in more indebtedness. In this rendition, debt is a constitutive relation of power between two conjoining parties – creditor and debtor – that reproduces itself through moral and power dynamics. However, the ICR loans are responsible for distributing public and private forms of debt as a result of market activity that is organised by the government. Market organisation is evident in the free-market model envisioned in the Browne review, which held the assumption that market mechanisms would achieve the distribution of funding in a way that the government could not. However, unanticipated student debt amounts and market mechanisms that had failed to operate as envisioned in the design, had led to a re-evaluation of the market voiced in the Augar review. The review had made the argument for government steering of the market to produce favourable outcomes.

This point is important because the obligations the ICR loans form are part of market relations thereby becoming justifications for further reforms. In this respect, market organisation makes evident the centrality of expertise in exerting their own evaluations, assessments and repair. For example, the IFS played an important role in shaping the type

of solutions offered and producing economic knowledge to model repayment rates, as means for evaluating the efficacy of the reforms.

For this reason, collective concerns are a pivotal framing for the market reforms. Taking austerity as a central concern which required state action, has exemplified how the political and economic justification for further reforms had been ideologically reworked into market relations in light of the 2008 financial crisis. It seems however, that changing market conditions as well as loan terms had been politically inspired moves to both respond to public expenditure as a collective concern, yet at the same time keep the loans a progressive solution. The loans are thus central to measuring responsible action because any unrepaid debt is transferred onto the taxpayer, making them an accountable actor in the process. As I have shown, the ICR loans do not gear debtors towards the obligation to repay in a manner akin to consumer loans but entangle students in market relations, rendering students liable for attaining political goals.

In this respect, the political relations that have resulted from a government backed funding solution such as the ICR loans, entangle students in market relations as part of the obligation to repay. However, failure to uphold obligations is critically achieved by changing the conditions of the market, which carries consequences for students, universities and the taxpayer all become liable actors.

Governing students and universities

The thesis has argued throughout that replacing state funding with a solution such as the ICR loans has brought particular modes of governance. This has been achieved by following work that studies 'markets for collective concern', paying equal attention to the role of 'devices' and 'expertise' in organising the market (Frankel et al., 2019; Neyland et al., 2019b). This conceptual lens has been deemed appropriate because of the special empirical terrain of the HE sector as a market for collective concern. In this respect, not only had the HE sector been organised by use of market mechanisms as a hybrid public and private sector as mirrored in its funding. But failure of the reforms had precipitated further evaluation and repair, ushering in new regulatory bodies.

To date, there in an obvious empirical ambiguity surrounding HE policy studies. The purported HE market is governed by organising participants around competition and choice

to achieve state defined goals. In this respect, this thesis began with pointing to the empirical ambiguity surrounding HE policy studies that have analysed the sector by employing a 'quasi-market' framing in which simultaneously 'market modes of production' as well as non-market modes exist (Brown & Carasso, 2013). In contrast, I have shown how funding the sector with loans has played a central role in coordinating market participants towards set goals. Specifically, the ability to achieve a reduction in public spending has occurred alongside market mechanisms, as evident in the 'value for money' narratives that became prominent around the 2010 reforms. The importance of analysing a market from a governance perspective is that it shifts emphasis to the exertion of control that is not otherwise visible.

The analysis sheds light on the modes of governance ushered in as a result of the ICR loans. The implementation of the OfS as a regulatory body is a prime example. Failure of the reforms to produce a price differential had prompted government involvement to ensure the ICR loans remain a progressive funding solution that is equitably distributed between the taxpayer and students. I state this in contrast to Foucauldian-tinged political economy studies of debt that discuss the governance of indebted subjects through particular forms of debt, such as mortgage loans (Langley, 2006, 2009, 2020). For this literature, the disciplinary power of the state occurs either by directly intervening to change loan terms or by subjecting debtors to exploitative actors in unregulated markets. Instead, this thesis has not only made the case for noting the particular obligations a loan such as the ICR sets for market participants. But also that governing debtors is achieved by way of changing market conditions.

What is important to note is that, rather than reprimanding students for failing to act in a financially responsible way, the conditions of the market are altered to produce the most favourable results (Nik-Khah & Mirowski, 2019). For the HE market in England, it had meant an increase in governance, as exemplified in the latest Augar report (2019) which explicated the need for further state interference to deliver the social, economic and cultural benefits attributed to the HE sector. Yet more consequentially implementing the OfS as a new regulatory body to monitor the ability of the current market arrangement to achieve value for money. In a similar way to Jenle and Pallesen's (2017) suggestion that governance as

means of control is applied to steer consumer conduct through the market in indirect ways, introducing the OfS had carried similar effects.

It had been an attempt to change the conditions of the market, maintaining competition by setting external conditions of quality that universities must adhere to. What is crucial to note is that the OfS had not like previous regulatory bodies in HE simply carried responsibilities for overseeing the distribution of state funding. But instead, the OfS overlooks the allocation of student loans towards tuition fees because it carries the power to deny universities funding if they are deemed financially insecure. By securing value for money for both students and the taxpayer, the OfS is understood here as a regulator that mediates the effects non repayment carries for the taxpayer through its legislative powers to change market conditions.

Problematising, temporalities and collective concerns

Central to the fee loan regime is how austerity became reworked as a problem to be resolved by way of private debt, tying market participants into economic and political relations. In applying Callon's (1980, 1984) concept of problematisation as an analytical orientation to this study, I have shown how the issue of reducing the public deficit in light of the financial crisis, had been ideologically reworked. This reworking, from an economic to a political problem had played a significant role in the 2010 reforms which set the terms for the market and the role of market participants. In this respect, reducing public expenditure for HE had become a collective concern, an issue to be resolved by shifting financial responsibility onto students and distributing funding by way of market.

The ICR loans had played a central role in the solution to respond to HE funding as a collective concern. The repayment terms of the loans and the ways they are calculated on Treasury accounts had ensured that it would appear as if a reduction had been achieved on government spending on HE. It is this apparent reduction that is fundamental here because it became a prompt for further issues to be resolved by way of market reforms. This claim both confirms and extends recent literature that studies 'markets for collective concern' which has effectively demonstrated the ways market, or market mechanisms are applied to resolve public issues (Frankel et al., 2019). While implementing a market to better distribute public funding had been a primary aim of the reforms and the justification made evident in

policy papers. The loans had been an integral device, and form part of the solution towards addressing funding HE as a collective concern.

Further, distributing student loans by way of market relations had precipitated forms of control over both student and universities. That is to say, by having the power to discern what constitutes a problem as well as who may be included in the definition of the problem, the government had precipitated a process of defining how such problems can be tackled practically. As pointed to above, in contrast to studies that understand the governance of debt as a form of disciplining (Langley, 2006; Lazzarato, 2012), changing market conditions is here understood in terms of configuring action. What comes to constitute the 'best' choice in the market, had been inherently tied to the ability to repay debt. Failure to do so becomes problematic as it puts at risk the ability of the government to attain political goals. This instrumental view of problems is similar to the one described by Deleuze (1994, p. 159) that draws attention to the incessant reworking of problems as means for exerting control.

What is significant is tracing the ways obligations as market relations are problematised, by pointing to the temporal relations that bind the subject to such obligations. Estimating the long-run public cost of the loans had become integral to understanding the implications of the funding system on the current taxpayer subsidy. The IFS had played a central role in modelling predicted repayment rates, taking into consideration the lifetime behaviour of the 'average graduate' to assess the costs of funding the loans today. As I have pointed out, these calculations had been problematic because they sought to model uncertain conditions such as loan take-up rates, repayment behaviour, student numbers, fee levels and the government changing cost of borrowing, with the aim of informing government policy. In this respect, despite playing a central role in the loan terms, non-repayment of debt and the particular subjectivities that would form part of the financial risk of the market had been deemed an issue that must be resolved as it threatened the efficacy of the market arrangement to respond to HE funding as a collective concern.

Crucially, once these expectations had not been met, as reflected in repayment calculations, policymaking had been aimed towards rectifying the perceived deficiencies in the market rather than exerting direct control over students. I have attributed this point to the particular forms the ICR loans take in the market, thereby precipitating increased governance. The implementation of the OfS as a new regulatory body reveals that the loans

have always been central to the market solution, where regulatory measures had been enforced to ensure student compliance and govern university conduct. As raised above, this point is similar to Jenle and Pallesen's (2017) suggestion that governance is applied to steer consumer conduct through the market. However, within the HE market, such measures had been extended also to control the conduct of universities because they pose significant risk to the taxpayer.

Student loan debt has also shown to have ushered in new forms of control over the HE market, in many ways fitting political economy accounts that claim debt and indebtedness is a means for exerting control especially over the future (Lazzarato, 2012). However, as I have pointed to the ICR loans do not represent universal creditor-debtor relations, because non-repayment is a possibility. In this respect, the ICR loans are in many ways fitting Lisa Adkins's (2008, 2016, 2019) claim that the calculus of debt should be understood in terms of its temporal rhythms, which are not hinged on a linear anticipation of time but on calculations of possible futures. The uncertainty of the future had come to permeate calculations of debt, which take the possibility of future conditions that are subject to constant change and model them in a way that has not only guided policy but critically, precipitated further reforms.

Expertise, accountability devices and documents

A key insight from the analysis in this thesis is that the practices of calculation and schedules of student loan repayment form a central part of evaluating the efficacy of the reforms, because of the government's commitment to reduce public expenditure. The economic expertise of the IFS became central to BIS, who did not have the tools to effectively produce an estimate of future repayment rates and taxpayer contribution for government accounts. The constant calculation of the loan repayment figures, has been used as a means for evaluating whether the government had attained its goal. Unlike Adkins discussed above, I have argued for the importance of understanding the calculation of debt as part of the evaluation and assessment of the market. In this respect, student loans have ushered in new forms of control, such as the OfS, which has been conceived to monitor and change both student choices and competition through regulatory powers.

The application of expert knowledge to the design of the market has been significant for this thesis because it offered a lens into the potential influence of the loans to market

evaluations. Central to studying the ICR loans from a perspective of governance, are documents used to trace the calculative practices, expert knowledge mobilised and problems that had emerged. I make the claim for the suitability of documents for a study of accountability devices because the methodological approach often taken in STS inspired literature seems to rely on ethnographic methods to analyse market making (Hébert, 2014). Another relevant observation from this analysis is that the ICR loans form a unique object of study because the accounting practices of the loans, including calculative statements are made visible in documents. In this respect, documents enable an account of the expert knowledge mobilised in market making processes. For example, the loans calculation practices had been central to evaluating the success or failure of the reforms, used as a means for quantifying uncertainty and defining value for money. The policy documents published at the time of the reforms had made visible the wager with which the government had implemented the reforms, without a clear understanding of the implications for the public sector debt. But in attempting to reduce public spending on HE, the loans as a solution had merely resulted in further uncertainty over taxpayer contribution to HE.

This thesis then also adds empirical depth to a relatively new object of study: accountability devices. The co-ordinating role played by devices to distribute obligations between participants, entangling them in particular market relations, give precise form to concerns and the conditions that need to be discharged for their resolution (Neyland et al., 2019b). Similarly, as I have shown the ability to know whether or not deficit reduction had been achieved on government accounts is directly related to predicted repayment rates, with any issues arising necessitating changing market conditions. I state this despite the loans' policy contingent nature where the government holds the power to change the repayment terms for both current and future borrowers.

Concluding comments and further research

This thesis has closely studied the ICR loans as part of HE market making processes in England, to argue that market relations have been prefigured around the particular obligations of the ICR loans. I have placed this argument to challenge the assumption present in political and cultural economy studies of debt, namely Foucauldian and Marxist inspired work. As I have shown, this literature too strongly relies on debt as a general,

constitutive relation that simply reproduces exploitative relations of power by subjecting debtors to unregulated markets. Yet even when particular forms of debt are discussed, they are mainly analysed in relation to the disciplinary power of the state. More broadly, I have argued for a more nuanced view, one that is able to engage with indebtedness as entangled with state and market relations, whilst keeping the specific features of the market in view. This has been achieved by placing the thesis within the social studies of markets literature, to highlight market organisation as a form of expertise alongside the devices that take part in market making processes. In this following and final section, I present the implications and insights that arise from the conclusions raised in this chapter, namely, studying a loan-based solution in replacement of public funding, as part of the HE market.

The suggestion in this thesis has been that the particular form of debt, here the ICR loans is consequential and gives shape to market relations. To study the particular form of the ICR loans, the focus has been on the infrastructure of the loans in terms of their calculative practices and terms of repayment. These were central for not only tying participants in specific market relations but it the efficacy of the reforms had been evaluated as a measure of debt repayment. Again, the calculative practices were central for delving out the obligations that had been set as part of the contractual terms of the loans, and the evaluation, repair and assessment of the current market arrangement. In order to make sense of the particular ways debt entangles market participants through obligations, the calculative practices and contractual terms must be investigated. The insights gained from analysing the ICR loans in this way are relevant to political and cultural economy studies of debt because they provide a more nuanced lens to study the particular forms of debt and the relations it forms as part of the market.

Similarly, and following on from this point, this thesis gives empirical clarity for a study of marketisation processes in the HE market. An analysis of market making from a governance perspective, has revealed the ways market terms had been mobilised towards achieving specific goals. As part of the 2010 reforms, the almost complete removal of the government grant and its replacement with a loan-based solution had enabled market mechanisms to take place in a way that fees alone could not. The loans had revealed the precise form the market as an organised arrangement had been designed to take. Offering more nuance to the HE market as an empirical object is an approach that is relevant to HE policy studies

because this literature studies the effects of marketisation yet treats the market as a single unifying frame. In this respect, the centrality of the loans to market making may also be of relevance here because it this literature tends to overlook the terms of the loans and the political and economic framework with which it had been implemented.

In this respect, the political and economic circumstances surrounding the reforms are crucial to setting the loan terms and implementing a market solution. The reworking of austerity from an economic to a political problem distributed responsibility to the public. I was able to foreground problematisation as an analytical lens to trace the ways issues come to be defined as problems. Replacing the public grant with a loan-based solution had been central to responding to a reduction of public expenditure on HE as part of austerity governance at the time of the reforms. I noted that while the loans had been politically justified as a progressive and less costly solution to BIS's departmental grant, in effect the interest subsidy signified the loans a more expensive solution. The government's cost of borrowing had been higher than the interest paid on the loans by students. Publicly backed loan solutions are worthy of further attention because they appear crucial to state market relations, the distribution of responsibility within markets and the increased governance that is a result. Analysing austerity in a way that is part of market making is relevant to political economy literature that has studied austerity governance more generally and the implementation of loan-based solutions to replace public funding.

Studying the making of a market in the past has enabled foregrounding the work of experts and policymakers alongside to draw out the relevance of the loans. In this respect, to delve deeper into the recent government changes, as well as the effects the OfS has carried since its implementation in 2018 as a market regulator, further research is needed. An analysis into the current HE market may take account of expertise alongside market participants, in order to delve deeper into the practices as well as modes of governance that permeate market making.

As raised above, this thesis has mainly been interested in debt as a result of the ICR loans because it allows to account for both public and private forms of debt in relation to the market and state. However, the removal of state funding and the tripling of tuition fees has left students in a vulnerable position, with some taking on further private loans to fund their studies. More extensive research is needed in this area to account for the consequences of

the reforms in terms of student indebtedness, as well as subjecting such empirical objects to further scrutiny as part of a study into the HE market.

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