Ecological Economics 186 (2021) 107066

Contents lists available at ScienceDirect

Ecological Economics

journal homepage: www.elsevier.com/locate/ecolecon

Welfare systems without economic growth: A review of the challenges and next steps for the field

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A R T I C L E I N F O

Keywords:
Welfare state
Social security
Social policy
Post-growth
Degrowth
Sustainable welfare

A B S T R A C T

Welfare systems across the OECD face many combined challenges, with rising inequality, demographic changes and environmental crises likely to drive up welfare demand in the coming decades. Economic growth is no longer a sustainable solution to these problems. It is therefore imperative that we consider how welfare systems will cope with these challenges in the absence of economic growth. We review the literature tackling this complex problem. We identify five interconnected dilemmas for a post-growth welfare system: 1) how to maintain funding for the welfare system in a non-growing economy; 2) how to manage the increasing relative costs of welfare; 3) how to overcome structural and behavioural growth dependencies within the welfare system; 4) how to manage increasing need on a finite planet; and 5) how to overcome political barriers to the transformation of the welfare state. There is now need for further research investigating the macro-economic dynamics of post-growth welfare systems; trialling preventative, relational, low-resource models of welfare provision; and seeking to better understand political barriers to a post-growth welfare transition. We also make the case for considering post-growth welfare studies as a field in its own right, with the aim of improving coherence and cross-fertilisation between disciplines.

1. Introduction

Current global social, economic, and ecological trends require that we consider what the future of welfare systems might look like without economic growth. Welfare systems across the OECD today provide a host of foundational goods and services, from education and healthcare to social security payments and housing. These programmes are often vital to the health and wellbeing of citizens, particularly those for whom private alternatives would be prohibitively expensive (although the level at which they are provided is often considered insufficient). However, these welfare systems now face a stark reality of multiple, interconnected challenges: deep and rising inequality (Denk and Cournede, 2015; Ruiz and Woloszko, 2016); burdensome demographic changes (Chłoń-Domińczak et al., 2014; Rouzet, 2019); increasingly palpable changes to our climate and ecological systems (IPCC, 2018; Díaz et al., 2019); and the ongoing social and economic challenges brought about by the COVID-19 pandemic. This paints a concerning picture for the fiscal sustainability of welfare systems, globally.

The traditional silver bullet for each of these problems has been economic growth. Growth, it is argued, brings greater resources to manage poverty and demographic pressures, and to mitigate and adapt to crises such as climate change and COVID-19. This outlook justifies economic growth as the central policy goal of most governments today. However, some prominent economists have begun again to explore the notion that wealthy nations across the OECD may be in a long-term economic slump, referred to in the literature as 'secular stagnation' (Gordon, 2012; Teulings and Baldwin, 2014; Summers, 2015; Jackson, 2017). Jackson (2019b) provides an up-to-date summary of the key debates around the drivers of secular stagnation. He pays particular attention to the tensions between supply-side explanations, such as reduced "supply potential" in the economy as a result of "a decline in the pace of innovation", and demand-side explanations, such as "'underconsumption' by households in the context of rising personal debt and heightened political risk" (Jackson, 2019b, p. 237). Although the causes are still contested, Jackson argues that regardless of the balance between these factors, the growth rate in advanced economies appears to be continuing its steady decline, albeit punctuated with periods of post-crisis recovery (Jackson, 2019b, p. 237; OECD, 2019a). He therefore suggests that there "may be no growth at all in the per capita income of the OECD countries within less than a decade" (Jackson, 2019b, p. 237).

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https://doi.org/10.1016/j.ecolecon.2021.107066
Received 3 March 2020; Received in revised form 22 February 2021; Accepted 6 April 2021
Available online 15 April 2021

In this context, considering how welfare systems will cope in the absence of economic growth represents, at the very least, a sensible precaution. It may even be desirable, as economic growth continues to be tightly coupled to the greenhouse gas emissions and material throughput of our economies, with little to no evidence that we can decouple these factors quickly enough to meet the 1.5° global warming target set out in the 2015 Paris Agreement (Hickel and Kallis, 2019). Deprioritising economic growth is likely essential in order to avert catastrophic climate change and may offer more time and flexibility to make the necessary changes to our global production systems. Post-growth economics[1] is the main field of research looking to understand the dynamics and implications of a transition to a non-growing economy. Although it has its roots in the 'limits to growth' work of the 1970s (Georgescu-Roegen, 1971; Meadows et al., 1972; Daly, 1973), the field in its current formulation is still young. Many of the relevant tools to answer core questions about a post-growth transition are still in their nascent development, and areas like the welfare state have yet to be fully explored.

This review aims to provide a synthesis of the existing research looking at welfare systems without economic growth. We are focusing on OECD nations in the Global North, since the dynamics of growth and wellbeing are considerably different across countries in the Global South. In particular, economic growth may still support wellbeing advances in certain regions, whilst others might take entirely different, non-western paths that are not amenable to the framing of welfare and economic growth that we apply in this review paper. Further, it is worth distinguishing here '*welfare systems without economic growth*' from '*sustainable welfare*', for which there is a connected but conceptually different emerging literature. We focus in this review on articles that consider how welfare can be provided in a non-growing economy, and the challenges that entails. By contrast, the sustainable welfare literature focuses more closely on the twin problem of how social policy can be enacted in an ecologically sustainable way and, in turn, how environmental policy can be delivered in a socially just way.[2] There is evidently strong overlap between the two literatures; however, in the interest of clarity, we focus on the former.

The review is structured as follows: in Section 2, we provide a brief background on OECD welfare systems, offering some context for their development and detailing current expenditure patterns. With this information as a backdrop, in Section 3 we identify five core dilemmas for a post-growth welfare system. We summarise the literature outlining each dilemma and highlight areas for further research. In Section 4, we reflect on the status of the field as a coherent body of work, considering some potential benefits from a more integrated research approach.

2. Welfare systems in the OECD: a background

To answer the question of how welfare systems will cope without economic growth, it is useful to begin with some context. Welfare systems have always been shaped by the ongoing political and social tensions between different groups within society and have been entangled with the performance of the wider economy. Although it is beyond the scope of this paper to give a full historical account, and although the specific stories have evolved differently in each country, we will highlight here some of the significant economic and social transformations of the 19th and 20th centuries that have contributed towards the creation and development of welfare systems across the OECD. These contributing factors can then frame our discussions about post-growth welfare systems and help us to think about what issues are likely to be pertinent, moving forwards.

2.1. The expansion of social policy

As is outlined in the introduction to *The Oxford Handbook for the Welfare State*, a good starting point for looking at the development of the modern welfare state is the rise of industrial capitalism in the nineteenth century and the associated "Great Transformation" (Polanyi, 1944; Castles et al., 2010). This entailed the movement of large numbers of people towards cities and new centres of wage labour, and the accompanying erosion of the pre-existing (and highly localised) patterns of social protection, characterised by family, community, church and guild (Elias, 1991). Although this transformation in many ways drove the rise of pauperisation, in what Polanyi called the "baffling paradox" that "poverty seemed to go with plenty" (Polanyi, 1944, p. 85), it also resulted in a rapid increase in the productive capacity of economies, providing states with more resources to manage the emerging social questions (Castles et al., 2010). At the same time, a mosaic of socio-political struggles across Europe led to the hard-won spread of civil and political rights (Sperber, 2005), and created the social and political architecture through which the proletariat of the time were better able to demand protections and assurances from the state (Castles et al., 2010).

Turning to Germany we can observe the kinds of policy shifts that exemplified developments in welfare systems around the turn of the century. In 1881, Chancellor Otto von Bismarck announced a radical programme of social insurances as part of his Imperial Decree. This represented a marked shift away from the means-tested[3] programmes that preceded it, towards mandatory-membership benefit schemes for industrialised workers (Korpi and Palme, 1998). Some authors have claimed that this reflected a desire to secure the loyalty of workers to the current regime, and "steer them away from the appeal of the (outlawed) social democrats" (Pierson and Leimgruber, 2010, p. 35). Whilst other accounts have emphasised the way in which the corporatist model of benefits focused on the "economically active population" (Korpi and Palme, 1998, p. 668), with the aim of boosting endogenous economic growth and bringing with it a competitive advantage over other industrialised nations (Castles et al., 2010). Through this example, we can catch a glimpse of the factors that were at work in shaping just one part of the character of the welfare system (i.e. whether eligibility was based on poverty or employment class), including the social needs of the time, ongoing class dynamics, economic performance, and political will. Other industrialised nations forged similar pathways, developing their own programmes for the sick, elderly, disabled and unemployed in the late 1800s and early 1900s. These developments were then largely stalled by the declaration of war in 1914.

2.2. Welfare state consolidation

The end of WW2 formed another important juncture for social policy in the twentieth century, with a new political landscape allowing for the widespread consolidation of social policy into what is now recognised as the modern welfare state (Nullmeier and Kaufmann, 2010). In particular, Sir William Beveridge's 'Social Insurance and Allied Services' report (Beveridge, 1942) laid a roadmap for the UK's tax-funded model of welfare provision, from which many other countries have borrowed. The subsequent years between the end of WW2 and the 1970s have often

[1] Taken here to include degrowth (D'Alisa et al., 2015), the new economics of prosperity (Jackson, 2017), and steady state economics (Daly, 1973), in line with Kallis' (2012) definition.

[2] There has recently been a special issue entitled "Sustainable Welfare beyond Growth" which deals with many of these questions (Hirvilammi and Koch, 2020).

[3] Korpi and Palme (1998, p. 662) define means-tested benefits as those for which "the claimant of the benefit may be disqualified for the benefit if her or his property or wealth exceeds a certain limit". This is distinct from Bismarck's programme in which "specified occupational categories" were given "the right to claim benefits when their normal earnings were interrupted for reasons beyond their control" (Korpi and Palme, 1998, p. 668).

been labelled the "Golden Age of the welfare state", characterised by social policy innovation as well as the rapid expansion of spending and an increase in population coverage in many countries (Pierson, 1998; Nullmeier and Kaufmann, 2010, p. 82). Gough (1979) introduces two core sets of activities undertaken by public authorities during these years. First, the direct provision of services, such as "social security, health, social welfare, education and training, and housing" (Gough, 1979, p. 3). Second, regulation of private activities through, for example, "taxation policies… consumer protection… building by-laws… the statutory compulsion of children to receive education", etc. (Gough, 1979, p. 4). In these ways, the state's agencies were not merely agents of redistribution, but were active in shaping the economy, and delivering goods and services too. Across much of Continental Western Europe, the time period was also defined by public-sector entrepreneurship and innovation in the form of publicly-owned utilities companies, national rail and mail services, and even public coal and oil companies (Millward, 2011). In addition to reflecting the post-war political landscape, the progressive growth in state welfare provision and public-sector innovation was also a reflection of the central role of Keynesian economics in governance at the time (Oliver and Pemberton, 2004). Social expenditure was seen in this Keynesian context as a driver of economic growth, stimulating aggregate demand in the economy (Quadagno, 1987). Further, these developments were largely validated by significant accompanying improvements in both social outcomes and macro-economic performance during these years (Gough, 2017).

2.3. A long decline

Driven by the rise of neoliberal and neoconservative politics, and reinforced by the stagflation of the 1970s, popular perceptions about state intervention in the economy were beginning to change. By the 1980s many politicians across capitalist economies were favouring laissez-fair approaches to governance, characterised by deregulation and privatisation (Cahill, 2014). Understandings of the relationship between economic growth and the welfare state were also shifting, from one of (broadly) mutual reinforcement, to one in which rising welfare provision was perceived as causing a drag on the "dynamism and growth rates of Western capitalism" (Gough, 2016, p. 29). Atkinson (1995) provides a useful critical summary of the arguments in the literature of the time, which often cited inefficient fiscal transfers, distorted incentives, and large deficits as central factors in hampering economic growth. With this changing tide came the beginning of a long retrenchment of welfare states across the OECD. In many places, this retrenchment was enacted in tandem with significant efforts to privatise public goods and services, and to reduce governmental intervention in the economy as a whole (Nestor and Mahboobi, 2000). In spite of this, cuts to the budgets of welfare services were not always perceived as being ideologically driven (as, for example, was quite clearly the case in the US and UK under Ronald Reagan and Margaret Thatcher). Instead, the observed reductions in replacement rates for unemployment, pensions and sick pay were, in many countries, seen as a pragmatic response to the fiscal pressures cause by the rising burden of unemployment in the 1980s and 90s (Huber and Stephens, 2001).

As long-standing analyses of the process of welfare state development became less and less able to explain these new dynamics of retrenchment, authors like Paul Pierson sought new models to conceptualise the retrenchment of social policy (Pierson, 1994). He contended that the years following the Golden Age were subject to "fundamentally different" political dynamics, with political parties of all shades employing tactics of blame avoidance in order to enact politically unpopular welfare cuts (Starke, 2006, p. 106). Although increasing need, and therefore demand on the welfare state, is considered a major driver of retrenchment (i.e. spending not keeping up with demand), the timing of the cuts and the impact of other drivers (e.g. political party, economic crises, etc.) are still poorly understood.

This section highlights just some of the factors that are likely to play an important role in shaping and defining the transition to a post-growth welfare system, from prevailing political ideology to class dynamics and the structure of the economy. Through this, we set the scene for further discussion of these and connected issues later in the paper.

2.4. The current state of things

Turning briefly to the current expenditure patterns of welfare systems across the OECD, data from OECD, 2020 shows that health and old age pensions make up the most significant categories of social expenditure for almost all countries, often summing to more than the rest of the social expenditure combined (see Fig. 1). Further, their significance is only likely to grow as government expenditure on healthcare as a proportion of Gross Domestic Product (GDP) is projected to rise from 8.8% in 2015 to 10.2% by 2030 (OECD, 2019b), whilst pension spending is projected to rise from 8.8% in 2015 to 9.4% by 2050 (OECD, 2019c).[4] This central importance of health and pensions is also reflected in the post-growth welfare literature. For this reason, many of the illustrative examples used throughout this review are taken from these sub-sectors of the welfare state.

3. The problem with welfare without growth

The topic of welfare provision in a non-growing economy has generated cautious interest from many disciplines thanks to its deep fiscal, ecological, ethical, and political challenges. The threads of these challenges run through the micro, meso, and macro levels of the economy and society, and their implications are manifold. At the national level, the problem of state welfare provision in a post-growth economy is, in many ways, a microcosm of the general post-growth challenge: how to ensure the sustainable prosperity of a population in a non-growing economy, in a way that does not compromise the ecological integrity of the planet, or the ability of others around the world (and in the future) to meet their own needs. In the specific context of the welfare state, this challenge has been expressed in the literature in terms of five core dilemmas. One, how to maintain funding for the welfare system in a non-growing or shrinking economy. Two, how to manage the increasing relative costs of welfare, compared to other goods, without relying on economic growth. Three, how to overcome structural and behavioural growth dependencies *within* the welfare system. Four, how to manage increasing needs, and therefore demand, on a finite planet. Five, how to overcome political barriers to the transformation of the welfare state.

We address each dilemma in turn below, considering how it has been defined and addressed in the literature to date, and what research gaps remain. These dilemmas are interconnected in places and have often been dealt with together in the literature. Where this is the case, we try to be explicit about how one affects the others. However, we believe there is value in addressing them separately here. This is for the sake of clarity and to highlight the distinct dynamics at play, as the arguments surrounding one dilemma can often become entangled in, and absorbed by, those of another.

3.1. Dilemma 1: funding for the welfare state in a non-growing economy

The negative impacts of recession, and in particular of austere responses to recession, have been long-established. The implications for health and wellbeing are particularly well-documented (Karanikolos et al., 2013; Stuckler and Basu, 2013), with the 2008 financial crisis clearly demonstrating these effects. In the UK, for example, austerity policies pressured healthcare providers to deliver the same services on a

[4] Although some sectors may decrease in average expenditure by 2050 (e.g. education), these declines are "likely to have only a small… effect" since they account for a relatively small proportion of overall spending (European Central Bank, 2006, p. 70; Amior et al., 2013).

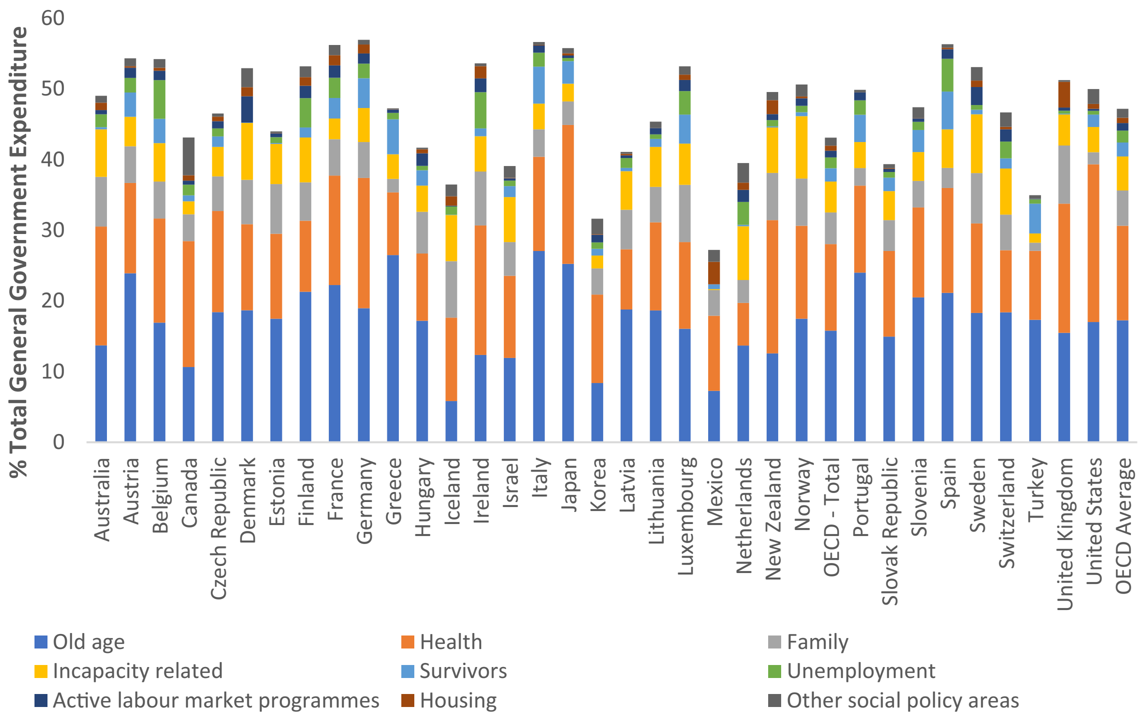

Fig. 1. Social spending by category, as a percentage of total general government expenditure, 2015. Source: OECD (2020).

tighter budget. Watkins et al. (2017) found that the subsequent restrictions on access to quality healthcare led directly to more than 45,000 additional deaths in the UK between 2010 and 2014. In addition to direct impacts on patients and workers in the health system, austerity has also been associated with rising suicide rates and outbreaks of infectious diseases, among a host of other health consequences (De Vogli and Owusu, 2015). After an extensive review of the effects of the financial crisis in Europe, Karanikolos et al. (2013, p. 1323) conclude that “the interaction of fiscal austerity with economic shocks and weak social protection is what ultimately seems to escalate health and social crises in Europe”. Now we find ourselves at a particularly fragile intersection between the shadow of fiscal austerity, barely-recovered welfare systems, the overwhelming increase in demand on health and social care services resulting from COVID-19 infections, and the economic shock of a rapid decrease in economic activity as a result of ongoing lockdown measures. Given this context, a central question for a post-growth welfare system becomes: how can we build a welfare system that avoids these combined circumstances and their poor outlook for health and wellbeing?

Setting aside the political, social and structural components of this question for a moment (we deal with these in later sections), one major component of this challenge is the accounting question: how can we maintain funding for the welfare state in times of low, no, or negative growth?[5] All else equal, we expect governments to receive less tax revenue when growth declines (at least relative to a growth scenario). In order to avoid socially damaging cuts to welfare services, we must therefore look at what that ‘all else equal’ entails and ask under what conditions the outcome of declining funding for welfare might be avoided. There are, of course, also questions about how we might be able to provide ‘more welfare’ with fewer resources (efficiency) or simply *need* less from our welfare services (demand reduction). However, the former has been the focus of mainstream economics for many decades, so we will not address it here, and the latter is discussed in detail in Section 3.4 below.

Some post-growth economists have developed ecological macroeconomic models that seek to explore the question of how we might achieve “socially sustainable post-growth pathways” (Hardt and O’Neill, 2017, p. 198; Alessandro et al., 2020). They are built on the basis of strict accounting principles for both financial and material stocks and flows. These developments have, in part, been a response to the inability of more mainstream modelling techniques to deal with scenarios that involve rapid and path-breaking transformations, such as those expected in a deep decarbonisation scenario or more generally in a post-growth transition (Jackson, 2019a). The models often include a government sector and explore different government spending scenarios, from strict austerity to countercyclical spending approaches (Jackson et al., 2016; Jackson and Victor, 2019). Some have also looked at the impacts of specific government spending policies, such as a green jobs guarantee (Godin, 2012) or an environmental tax on firms and households (Naqvi, 2015). A series of outcome variables are then usually reported on, from income-inequality and employment rates to carbon emissions and debt to GDP ratios. In this way, work of this type explores possibilities for maintaining a non-growing economy with positive social and environmental outcomes.

These efforts take us some way towards mapping how we might best be able to maintain stable – or even increasing – funding for the welfare state in a post-growth economy. However, as with any modelling exercise, there are limitations and places that are yet to be explored. A useful next step might be to take a more disaggregated approach to government revenue and expenditure. For example, by investigating the

[5] It is important to note here, as many authors have before us, that a recession (characterised by negative growth rates) is not the same as a post-growth or degrowth economy. Importantly, recession is unplanned and occurs in the context of the existing growth-based economic system. A post-growth economy, by contrast, would strive to create a new economic system where there can be low, zero or negative growth rates, *without* the catastrophic social consequences that are historically associated with recession. This is reflected in much of the literature, which looks to understand how the current system is structured in order to then identify what needs to change to reduce growth dependence. It is this debate that we seek to capture, in part, in this review.

consequences of different tax revenue compositions on the overall tax take of the government.[6] Welfare systems across the OECD rely more or less on different tax sources, from taxes on income, profit and capital gains, to taxes on goods and services, and social security contributions (OECD, 2019d). These different tax sources might be dependent on growth in different ways. For example, social security contributions depend directly on employment and wage rates across the economy in a way that taxes on goods and services do not (Petschow et al., 2018). Further, the designated tax rate for each revenue source has implications for the likely allocation of firm revenue between capital and labour. This itself has knock on consequences for wages, employment, savings and consumption within the economy. Progressing these stock-flow consistent models so that they can investigate disaggregated tax policy dynamics could represent a fruitful advance for the field.

This work could also benefit from building more dynamic visions of state architectures and logics into the stock-flow consistent models. For example, embedding ideas about public authorities as more than just vehicles for redistribution, but also as active agents in the economy; managing, regulating, and delivering vital goods and services. Alternatively, incorporating characterisations of the state's agencies and actors as risk-takers and innovators (Mazzucato, 2011), and explicitly framing government investment as "a vehicle through which we build, protect, and maintain the assets on which tomorrow's prosperity depends" (Jackson, 2017, p. 150). Through these more dynamic portrayals of state architectures, a number of key questions can begin to be explored. For example, what are the macro-economic implications of different financial regulations within the welfare state and welfare-adjacent markets? What are the trade-offs (both financial and social) between private and public delivery of welfare services? What are the implications of an investment-as-commitment model of state expenditure? And what are the effects - on both revenue generation and cost base - of a model in which public authorities retain a claim to some portion of the outputs of the innovations they help to develop? We discuss some of these ideas further is Section 3.3.

3.2. Dilemma 2: the increasing relative costs of welfare

Our second dilemma considers the increasing *relative* costs of welfare provision, and how these dynamics might unfold in a non-growing economy. Looking at government spending over time across the OECD, we observe that expenditure on welfare, and in particular health, is growing at a faster rate than GDP in most countries (OECD, 2006; Obinger and Wagschal, 2010; Hensher, 2019). This is likely to have been accelerated by COVID-19, at least in the medium-term[7] (The Economist Intelligence Unit, 2020). This means that expenditure on welfare is absorbing an ever-increasing proportion of GDP. There are a number of possible contributing explanations for rising welfare expenditure, each of which we deal with, in turn, in later sections of this paper. These include market distortions that affect price (e.g. oligopolies) (Section 3.3); increasing demand as a result of rising levels of need (e.g. an increased health burden in the population, an aging population, etc.) or expectations of ever-improving health outcomes from citizens (Section 3.4). In this section, we focus specifically on the effects of Baumol's cost disease on the relative costs of welfare services; i.e. why welfare services have become more expensive over time *as compared to* the cost of manufactured goods. We then ask what implications this might have for a post-growth welfare system.

In its original form, Baumol's cost disease theory states that if labour productivity (output per labour hour input) continues to increase in the manufacturing sector, but does not do so (or does so to a lesser extent) in the services sector, then the cost of services will increase, relative to the cost of manufactured goods (Baumol, 2012). The existence of a cost disease in the public services has been supported by a handful of empirical studies and government reports (Colombier, 2012; Bates and Santerre, 2013; European Commission, 2013; Office for Budget Responsibility, 2013; Borge et al., 2018). If these increasing relative costs continue in the long run - which we would expect since the scope for labour productivity gains in the service sector is limited (Jackson, 2017) - this pushes the government into a sticky 'trilemma'. It must either cut funding for public services, reduce welfare benefits, or increase tax rates until they become so burdensome as to hinder aggregate economic activity to the point of reducing *total* tax revenue (also known as the Laffer bound) (Andersen and Kreiner, 2017, p. 418). Andersen and Kreiner (2017) contend that it may be *theoretically* possible to achieve welfare state sustainability, even under the conditions of the cost disease (using a model of a two-goods economy with Baumol growth to demonstrate this point), although they acknowledge that it is likely to be limited by a (lack of) flexibility in the tax system, in practice.

The cost disease theory has not gone unchallenged. Bailey et al. (2016), p. 91) argue that public services are not categorically distinct from manufactured goods and as such have "substantial scope" for improved productivity. That said, the authors' examples of increased surveillance and e-policing, self-service libraries and 'telecare' for elderly people do not bring a particularly comfortable, or necessarily sustainable, vision of the future to mind. Further, their argument seems to firmly rest on an aversion to the categorical distinctions between manufacturing and services. Even if such categorisations are not correctly applied, and the activities exist instead along a spectrum, we would still expect to see relative increases in cost for those activities for which productivity gains happen more slowly, or not at all.

These studies are primarily focused on the effects of Baumol's cost disease on a growing economy. But what will happen to these dynamics if the economy stops growing, or even shrinks for some time? This raises questions about the relationship between labour productivity and economic growth; about the allocation of gains from increasing labour productivity between growth in production and reductions in working hours; about workforce transition from the manufacturing sector to the services sector; and even about the nature of good work. These issues have yet to be fully explored in the post-growth literature; however, conference presentations, book chapters and working papers are beginning to lay the groundwork for future research in this area (Jackson, 2017; Isham et al., 2020).

3.3. Dilemma 3: growth dependencies within the welfare state

The third post-growth welfare dilemma we have identified in the literature is how to overcome the logics of economic growth that are embedded *within* the welfare system itself. Growth dependence can be broadly thought of as those conditions that require the continuation of economic growth in order to avoid significant psychological, social, and economic harms (e.g. mass unemployment, poor health outcomes, etc.). The specific form that growth dependencies take varies from system to system. In this section we address two aspects of growth dependence within the welfare state. We focus on the internal logics, both behavioural and structural, that encourage or even demand continued growth in order for the welfare system to function. Again, the healthcare sector provides a striking and well-researched example. It exhibits dependence on growth at both the individual and institutional levels, which we will explore below.

Borowy and Aillon (2017) address the logics driving growth-oriented behaviours in the health system. They contend that the resource intensive model of healthcare that can be seen in most advanced economies

[6] Maximum income policies are also regularly proposed as part of the post-growth literature (Alexander, 2014), and there is still a need to understand the macro-economic implications of different ways of implementing such a policy (e.g. through very high income tax levels or a cap on wages).

[7] In some countries healthcare expenditure has gone down in the short-term due to the cancellation of routine check-ups and non-urgent procedures (The Economist Intelligence Unit, 2020); something that will likely have delayed repercussions for healthcare expenditure in the following years.

today is, in part, driven by financial incentives for those working in (and adjacent to) healthcare. These incentives, they argue, encourage doctors, hospitals, insurance providers and pharmaceutical companies to capture and treat ever more patients for ever more profit. In the US, this "patient-as-consumer" model is protected by law, with courts enforcing contracts that require uninsured patients to pay prices far in excess of the actual costs borne by treatment providers (Hall and Schneider, 2008, p643). This conflict between the social and financial outcomes of the healthcare system manifests itself in a number of ways. Pharmaceutical companies, for example, are embedded in a competitive, for-profit market setting, with strong incentives to maximise profit, rather than social benefit. This has several pernicious consequences.

First, it leads to the priority development of "commercially attractive" drugs and "me-too" drugs (i.e. drugs which have little additional therapeutic value to those already on the market) (Borowy and Aillon, 2017, p357), and a corresponding neglect of socially beneficial but less profitable drugs, such as those aimed at tropical diseases (Trouiller et al., 2002). Second, the competitive market setting results in "enormous sums spent on marketing" (Borowy and Aillon, 2017, p358), as well as "buy-backs aimed at boosting short-term stock prices", in an effort to maintain market share (Mazzucato, 2018, p. 208). This, Borowy and Aillon (2017) argue, drains funds away from those areas of drug development most needed to support population health. Similar kinds of 'defunct' market dynamics can be observed in other privatised sections of the welfare state, including social care (Forder and Allan, 2014; Barron and West, 2017), prison management (Andrew, 2007), and transportation (Tyrrall, 2004). The presence of supply oligopolies, lengthy drug patents and informational asymmetries all serve to distort market prices and give providers market power over consumers. These mechanisms, among others, increase the cost of welfare for governments and consumers. Mazzucato's (2011, 2018) work on the potential role of state apparatuses and agencies in shaping markets like the pharmaceutical industry (e.g. by reducing rent seeking behaviours and incentivising more socially-beneficial behaviours), and in retaining value from the risky, early-stage research and development investments it makes, could form important components of effective, innovative post-growth welfare systems.

However, changing these growth-oriented logics and structures will come with political and structural challenges for a post-growth transition (e.g. overcoming lobbies with vested interests, such as the pharmaceutical industry). And although the extremes of this marketised, patient-as-consumer model of healthcare have clearly negative implications, Fischer (2016) argues that the dual financial and social motivations are both necessary, if contradictory, parts of the system. In particular, he states that one part drives the social outcomes of the system, whilst the other gives health professionals (as economic entities) the freedom to act "for the benefit of others" (Fischer, 2016, p. 6). The question, therefore, about how we might overcome these growth dependencies in order to create a 'growth-independent' welfare system is a complex one with challenging trade-offs at its core. Authors like Fischer (2016) and Mazzucato (2018) caution us away from simplistic solutions that strip all economic logic from the health system. Instead, they argue that healthcare models that strive for a better balance between social and financial drivers, that correct market dysfunctionalities, and that capitalise on the innovative, social-investment capacity of state agencies and public research centres, might offer a fruitful way forward (e.g. public ownership of medical practices, profit-sharing for publicly funded innovations, tighter regulation of the pharmaceutical industry, etc.).

These measures are, however, unlikely to be sufficient to eliminate growth dependence on their own. The health and social care systems (among other areas of the welfare state) are inextricably embedded in the wider economy and society. This means that many other factors, including patients' expectations of ever-better treatments, political drives for efficiency and productivity, and competition from private health clinics, all apply significant pressure on the healthcare system to grow. A holistic post-growth transition would need to address these issues together; a not insubstantial challenge.

In this vein, non-market provision of services may play an important role in delivering welfare in the absence of economic growth. For example, unpaid and informal carers already provide health and social care services outside the architecture of the state and the market economy. The value generated by these activities is largely omitted from GDP statistics (Corlet Walker and Jackson, 2019; Kubiszewski et al., 2013) and it does not depend directly on economic growth. However, those providing informal welfare services are usually compelled either to participate in formal market activities in order to generate income, or to rely on state apparatuses for social security payments (or some combination of the two); both of which depend on economic growth in some way. And given the strain these options often place on the health and wellbeing of carers (e.g. as a result of having to use holiday time to work or to care (Colombo et al., 2011), or receiving state support payments that don't adequately replace income (Zigante, 2018)), any non-market notions of post-growth welfare would need to take these issues and many others (e.g. the gendered nature of care work) into consideration to ensure good work and a good life for all within planetary limits.

The growth dependencies explored above, although particularly visible in the healthcare sector, may well exist in different forms in other sectors of the welfare state. There has been some interest in behavioural growth dependencies in the pension system, which we will touch on in Section 3.4 below, alongside issues of demand management. However, there is a significant gap in the literature on growth dependencies in social care, education, public transport and prisons, among other areas. Research here might help to identify sector-specific barriers to a post-growth welfare transition and open up possible routes for transformation.

3.4. Dilemma 4: increasing welfare demand on a finite planet

In this section we outline the general problem of meeting increasing needs[8] on a planet with materially finite resources, and the dilemma this causes for the fiscal sustainability of the welfare state. In particular, here we are distinguishing between human *needs* (defined by Doyal and Gough (1984, p10) as "those goals which must be achieved if any individual is to achieve any other goal") and *desires,* or *preferences*. We focus explicitly on the former since meeting human needs for all has been considered by many authors as the baseline, or social foundation, for a just and prosperous world (Raworth, 2017).[9] We consider in some detail how this problem manifests itself within the pension system. We then go on to discuss two kinds of response to this dilemma within the post-growth literature: those that consider how we could redefine welfare and those that propose a restructuring of the welfare system.

At the most basic conceptual level, as new social needs have emerged over time, driven largely by "demography, family change and socio-economic shifts"[10] (Gough, 2017, p. 115), economic growth has helped to avoid distributional conflicts for governments by providing the option to meet this growing need without having to dramatically increase tax rates. However, we know that economic growth and the material footprint of the economy are tightly coupled, with very limited evidence that we will be able to rapidly decouple the two factors in the near future (Hickel and Kallis, 2019). Hence, economic growth is no longer (if it ever was) a sustainable strategy to meet the rising welfare demands of populations in economically advanced countries. The political challenge presented by this fact is significant, and something that

[8] These increasing needs may result from growing and aging populations, and the development of novel needs in response to the changing structures of society. Each is discussed below.

[9] We explore the theoretical differences between the concepts of needs, capabilities and preferences in more detail below.

[10] For example, rising life expectancy, falling fertility, increases in divorces and single-parent households, among other factors.

we explore in some detail in Section 3.5 below. In fiscal terms, Bailey (2015) argues that the strain caused by an imbalance between rising demand and stagnating funding (and limited physical resources) will, as a minimum, require an innovative restructuring of the welfare state. In the worst case, he fears, it may even inhibit the ability of the state to provide an effective social safety net for its citizens during a potentially turbulent time of transition (Bailey, 2015).

These problems are particularly visible in the pension sector, where need (and therefore demand) is increasing over time, and which already accounts for a significant proportion of government spending in many OECD countries (see Fig. 1). According to some authors, a transition to a non-growing economy would “aggravate the already existing pressures” from an aging and decreasingly fertile population, a trend towards secular stagnation, and persistent low interest rates (Strunz and Schindler, 2018, p10). These pressures are likely to pose difficulties for both Pay-As-You-Go and funded pension schemes. For example, as fertility declines and longevity increases, the sustainability of Pay-As-You-Go pension schemes is significantly challenged, with pressure mounting on a working population who must provide contributions for an increasing number of retirees (Blake and Mayhew, 2006). This makes funded pension schemes seem increasingly attractive.[11] However, with the additional risks of economic stagnation and low interest rates, funded pensions with defined-benefit promises are also facing increasing difficulty fulfilling their obligations (Seidl and Zahrnt, 2012). This has historically led investors to look to riskier investments in order to secure the funding for their payment obligations, in what Antolin et al. (2011, p237) call “gambling for redemption”.

Proposals to overcome these challenges have included expanding working life (e.g. through early training or delayed retirement), reducing benefit payments, or increasing worker contributions (House of Commons Library, 2015). However, the working logic of the current pensions model, combined with the vested interests of both the pension age and working age population (and their employers), make these proposals unpopular and unlikely (Petschow et al., 2018; Strunz and Schindler, 2018). They also clash with core post-growth ideas around justice, good work, and the need to mitigate the labour productivity trap. However, if no action is taken to rethink and restructure now, declining economic growth rates during a post-growth transition are likely to deepen the necessary structural reforms later down the line (Petschow et al., 2018). This dilemma may also heighten the distributional conflicts associated with a post-growth transition, not only between rich and poor, but also between the working-age population and the retired.

3.4.1. Alternative conceptions of welfare

There have been two main responses to the general issue of welfare demand management on a finite planet. The first tries to separate the idea of *desires* from *needs*, in order to create a theory of welfare that is compatible with the notion of limits. There is a long history of criticism of mainstream theories of welfare, particularly those based on preference satisfaction (Sen, 1977; Gough, 2015). Of particular interest in the context of sustainability is the characterisation of welfare as insatiable; in other words, that more is always better. Instead, post-growth authors, among others, have sought theories of welfare that embody characteristics of sufficiency and satiability. Some have argued that a *human needs approach* is best equipped for this task thanks to its focus on universal, satiable needs (Gough, 2015; Koch et al., 2017; Büchs and Koch, 2019). Others favour a *capabilities approach* (Sen, 1984; Jackson, 2017), which focuses on opportunities and achievements instead of universal needs. Its proponents argue that the capabilities approach moves away from moralistic arguments about consumption and needs fulfilment, giving greater flexibility in terms of individual choice,[12] and allowing for an acknowledgement of the social and symbolic nature of consumption (Jackson et al., 2004).

Crucially, what must be kept central to any post-growth definition of welfare is the framing that “a fair and lasting prosperity cannot be isolated from [the] material conditions” of the planet (Jackson, 2017, p. 63). This is, however, not without its challenges. In particular, Büchs and Koch (2019) highlight the potential clash between the ideas of sufficiency/ satiability and citizens’ current expectations that healthcare provision and life expectancy will go on increasing ad infinitum. Deliberative forums have been suggested as a means to both identify socially acceptable levels of welfare provision (e.g. in pensions benefits) (Petschow et al., 2018), as well as to “support cultural shifts on well-being thinking” (Büchs and Koch, 2019, p155). Ethical questions about *how* we deliver welfare (e.g. use of data and technologies) and *for who* (i.e. the extent of our social solidarity) will certainly be crucial to evaluating the trade-offs between ecological, economic and social factors in a post-growth economy. However, these articles have not yet fully addressed ethically challenging questions such as how we collectively judge what constitutes ‘sufficient’ national levels of welfare provision, how to manage ever-increasing welfare expectations, and what kinds of social values might be (in)compatible with sustainability of the welfare state. These questions are not always intuitive or straightforward, and they are particularly challenging in a context where the jury is still out on whether we have enough resources to meet any agreed minimum level for everyone, globally.

Undertaking a global empirical analysis, O’Neill et al. (2018) found that no country had successfully met its citizens’ basic needs, whilst remaining within their country’s ‘fair share’ of global resources. Through this work the authors raised the possibility that the space between the lower bound of human needs and upper ceiling of planetary boundaries could be “vanishingly thin” (O’Neill et al., 2018, p. 92). Others have since modelled global scenarios under which decent living standards could be sustainably met for everyone, globally; for example, by taking full advantage of the most energy efficient technologies for food storage, lighting, heating, etc., whilst also reducing consumption to a ‘sufficient’ level and no more (Millward-Hopkins et al., 2020). However, the authors highlight that this scenario would require “drastic and challenging societal transformations… at all levels”, and that their paper does not go as far as detailing how this could be rolled out in practice (Millward-Hopkins et al., 2020, p. 8). This emphasises the crucial role of post-growth welfare studies in imagining bounded possibilities for the welfare system, focused on how we can deliver welfare creatively on a planet of limited resources.

3.4.2. Alterative models of welfare

Building on this idea, the second response to the dilemma of meeting rising need on a finite planet has been to consider alternative models of welfare fit for a post-growth society. These models have focused on reducing demand and decoupling wellbeing from resource use. In pursuit of these goals, new welfare proposals have variously focused on developing three core characteristics of the welfare state: being *preventative*, *local* and *relational*. This discussion is particularly well-developed in the field of healthcare, with its roots in Ivan Illich’s critiques of the medical establishment in the 1970s as something that undermined the “environmental and cultural conditions needed by people to live a life of constant autonomous healing” (Illich, 1975, p. 6). More recently, Borowy and Aillon (2017, p. 355) have argued that the “biological, reductionist, objective and neutral conception of health”, combined with the growth dependencies outlined in Section 3.3 above, has led to high

[11] For example, Germany developed a supplemental funded pensions scheme in 2001 in response to growing pressures from an aging population (Börsch-Supan et al., 2004).

[12] In the words of Jackson et al. (2004), p26), “the capability approach allows us to distinguish between people who starve and those who are hungry because they choose to fast, and about whom there is no need to worry as long as they have the capability of eating well”.

resource models of healthcare that foster over-use and over-prescription of medication and medical therapies (e.g. Wang et al., 1999; Forgacs, 2008; Li et al., 2012). In line with others from across the healthcare literature, they call for greater focus on the social, political and environmental determinants of health (Commission on Social Determinants of Health, 2008; Kickbusch, 2015; Borowy and Aillon, 2017; Luzzati et al., 2018; Aillon and D'Alisa, 2019). The benefits of preventative public policy extend to other sectors of the welfare state too, with the potential to help address some of the pension and social care challenges associated with an aging population. There is substantial room for research looking into the possibilities for resource savings and improved social outcomes associated with preventative social policy approaches in a non-growing economy.

Turning to the scale of the welfare system, some authors have claimed that complex, national models of welfare provision are likely incompatible with low-energy and low-material-throughput versions of society (Quilley and Zywert, 2019). This line of argument concludes that the mode of social provisioning most compatible with a transition to a post-growth economy is one that re-embeds welfare in community by enhancing the roles of "household, the informal/DIY economy, and the culture and rituals of reciprocation" (Quilley and Zywert, 2019, p. 13). However, as the authors briefly touch on, such decentralised modes of welfare provision, and the more limited role for government that they often imply, bring with them the challenge of common pool resource management. I.e., that it makes sense for each community to use and produce more than is sustainable, since the benefits are local and the costs global. Indeed, given this risk of free-riders, there is a strong case that polycentric governance structures, involving cooperation between actors at the local, regional and national levels, will be necessary to effectively manage welfare for all within ecological limits (Ostrom, 2009). Issues of accountability and regional equality have also been under-addressed in these models of welfare.

Other authors have emphasised the benefits of moving towards more relational models of welfare delivery, with the aim of reducing resources and improving social outcomes. Hilary Cottam (2018) builds the case that the highly centralised, transactional and bureaucratic model of welfare delivery currently in operation in countries like the UK leads to a constant web of monitoring, prescribing and all-too-brief visits by front line workers. The consequence of this, she argues, is limited coordination between welfare agencies and virtually no hope of progression and improvement for the individuals and families who are caught in the web. Instead, Cottam (2018) proposes a new model of "radical help", which emphasises collaboration and coordination between professionals, and has state-supported social networks at its core. Until COVID-19, only a small number of experiments had been undertaken (e.g. in old age, health care and social work). However, the widespread establishment of mutual aid groups in March 2020 - delivering food and medicines, calling isolated residents, etc. - arguably represents exactly the kind of preventative, relational, multi-level welfare that might be fit for a post-growth society. In particular, emergency financial and logistical support from government has been combined with full use of modern technologies, and the time and compassion of local residents, in an arguably novel way. These groups present rich case studies; the question now is whether they will persist, or whether things will 'go back to normal'.

3.5. Dilemma 5: political barriers to welfare state transformation

The final dilemma that emerged from the literature is the question of how it might be possible to achieve a transformation of the welfare state, in line with the goals and guiding principles of a post-growth economy, given the strong growth-orientation of most governments, today. The importance of this dilemma was highlighted by Cosme, Santos and O'Neill, in 2017. The authors conducted a review of the degrowth literature, identifying and categorising different proposals for action. They found that the majority of proposals from the literature were "top-down approaches, focusing on government as a major driver of change" (Cosme et al., 2017, p. 321). Understandings about the nature of government and public authorities, how they makes decisions, and what roles are played by different actors have clear implications for what policy proposals and transformation strategies are likely, therefore, to be effective.

There are many implicit assumptions about the nature of government and public authorities embedded in the analyses and strategic proposals of the post-growth literature. These assumptions are, however, rarely explicitly stated,[13] with questions about who will enact such changes *and why* often left unaddressed (D'Alisa and Kallis, 2020). A lack of robust theory about the dynamics of decision-making and action within government risks the production and proliferation of ineffective strategies for change. The 'state' literature itself is wide ranging, with numerous theories about class dynamics, functional imperatives and cultural norms attempting to explain strategic directions, policies and actions undertaken by the state's agencies and actors (vom Hau, 2015). There have been two recent articles that draw on this literature to engage directly with the question of post-growth state transformation, which we discuss below.

The first article offers a theory about the "capacities of the state", arguing that it is bound by a series of imperatives that define the scope of action of its public authorities, and the potential policy choices of its elected officials (Hausknost, 2019, p. 17). According to this view, as the economy and society have transformed over time, new imperatives have been layered on top of old ones[14] (Dryzek et al., 2002). In particular, "the rise of the bourgeoise and its growing economic base" during the industrial revolution led to the emergence of the "state imperative" to support capital accumulation (Hausknost, 2019, p. 20). Next, the "struggles of an organised working class" required the provision of social welfare, which was reflected in the development of a legitimacy imperative (Hausknost, 2019, p. 20). The concept of "layering" (Gough, 2016, p. 41), rather than simple addition, is important here as it reflects the idea that new imperatives can only be added to the roster as long as they do not conflict with existing imperatives in a sustained or irreconcilable manner (Hausknost, 2019). Dryzek et al. (2003) and Hausknost (2019, p. 21) argue that "the addition of new imperatives has always been the result of social classes or movements struggling for inclusion in the state". However, they suggest that the ability of a social movement to convince the relevant government officials and public authorities of their aims *also* depends on whether or not the aims contradict a core state imperative. At the intersection of the capital accumulation and legitimacy imperatives then, we find a constant tension between those strategies undertaken by public authorities that facilitate capital accumulation, and those that provide adequate social welfare for the working class. Never with the latter fundamentally compromising the former.

In theory, economic growth helps to meet both of these "otherwise contradictory objectives" by supporting "profit, wage and employment growth and the provision of public goods" (Ferguson, 2013, p. 407). As the analogy goes: as long as the pie is growing, there is less pressure to divide the slices more equally among the population. However, if the pie stops growing or even shrinks (e.g. in a post-growth economy), we would expect the state imperatives of capital accumulation and legitimacy to come into conflict. This conflict would manifest itself in the choices faced by governments about whether to increase redistributive measures (in conflict with the accumulation imperative), enact welfare retrenchment (in conflict with the legitimation imperative), or increase public debt through deficit spending (potentially fiscally unsustainable in the long-term). These conflicts are not the central thesis of

[13] D'Alisa and Kallis (2020) do find that the question of the nature of the state is more explicitly engaged with in the francophone literature. However, we have not included that literature in this review.

[14] The core functions being considered as: maintaining domestic order, protecting against external threats and raising revenue to fund core state duties.

Hausknost's work[15]; however, framing government decisions in this way reveals a number of interconnected dynamics that may define or constrain the trajectory of welfare state transformation.

The second article of relevance here focuses on the "role of the state" in societal transformations (D'Alisa and Kallis, 2020, p. 2). The authors find that degrowth articles often implicitly embrace an interstitial strategy of transformation (e.g. Trainer, 2012), where alternative modes of living are created and promoted, "building the new in the cracks of the old, but outside the state" (D'Alisa and Kallis, 2020, p. 2). They critique these accounts as unable to deal with questions about why and how governments and public authorities would "decentralize, reduce [their] scale or change [their] functions", and who would then deal with issues of enforcement associated with a post-growth transition (D'Alisa and Kallis, 2020, p. 5). Others favour a symbiotic approach of transformation from within (e.g. Boillat et al., 2012; Koch and Fritz, 2014; Rivera, 2018); a strategy which D'Alisa and Kallis find equally wanting for explaining how these strategic changes would come about, and which actors would drive the changes. The authors instead propose a Gramscian view of the state, not as a "definable and monolithic actor", but as a relational entity comprised of both civil and political society. These two embodiments of 'the state' interact with one another such that civil-society-led, interstitial movements can generate symbiotic changes within government and, conversely, government-led reforms can allow interstitial activities to flourish. Gramsci's theory, they argue, may then help to resolve the seeming contradiction between top-down policy proposals and the grass-roots approach to change that is often advocated for in the post-growth literature (D'Alisa and Kallis, 2020).

Each theory about how and why governments and public authorities take decisions has specific implications for a transition to a post-growth welfare system. We already know that class dynamics, political interests, cultural norms and social values will each play their own part. And the question that these articles go some way towards addressing is where the balance between these social forces lies and, therefore, what specific strategies we might usefully employ to enable transformation. There may also be synergies between theories that can be capitalised on. For example, Hausknost's (2019) "state imperatives" are created through active and ideological struggles between different classes, government officials and public authorities. Meanwhile, D'Alisa and Kallis' (2020, p. 6) Gramscian theory emphasises the role of counter-hegemonic practices and narratives in disrupting existing hegemonies and ushering in new "common-senses", which can then be reflected back and lifted up by public programmes and policies. Although they are distinct, these two conceptualisations both hinge on an articulation of new social ideas and on a view of state architectures as ideologically permeable, enabling these new ideas to flow back-and-forth between civil and political spheres. Through further theoretical development and empirical ground-truthing, future research can better identify the specific ways in which governments and public authorities are constrained (or enabled) to move towards a low-resource, growth-independent, and just welfare system.

4. Discussion and conclusion

In conducting this review, we have identified five core dilemmas in the literature for a post-growth welfare system. One, how to maintain funding for the welfare system in a stagnating or non-growing economy. Two, how to manage the increasing relative costs of welfare, without relying on economic growth. Three, how to overcome structural and behavioural growth dependencies *within* the welfare system. Four, how to manage increasing need, and therefore demand, on a finite planet. Five, how to overcome political barriers to the transformation of the welfare state. These dilemmas are non-trivial, interconnected and are generally not amenable to obvious solutions. In particular, we identified the need for further research: investigating the macro-economic dynamics affecting post-growth welfare systems; trialling preventative, relational, low-resource models of welfare provision; and seeking to better understand the dynamics of government and public authorities, and how these might form political barriers to a post-growth welfare transition. Approaches from a large range of disciplines have been used to investigate these dilemmas, from ecological, political, post-Keynesian, and post-growth economics to sociology, social policy, and public health studies. This broad church has many benefits but also some disadvantages.

The welfare state is many things and can be viewed through several analytical lenses. It is a macro-economic body that both affects and is affected by macro-level dynamics. It is a set of distinct institutions with their own internal logics and behaviours. It is a mode of social provisioning. It is an expression of class dynamics and an embodiment of frameworks of justice and rights. Each of these distinct incarnations of the welfare state reveals a different formulation of the problem of welfare without growth. Each problem in turn requires a different set of tools to investigate it and generates different – and not always complementary – insights for progressing towards a post-growth welfare system. In light of this, it is not surprising that the post-growth welfare field can appear disconnected in places. It would be valid to question whether it constitutes a field at all, or just a collection of distinct disciplines that touch on the same subject matter. What draws this literature together, however, is a common goal of identifying ways of delivering ecologically, fiscally and socially sustainable welfare in a non-growing economy.

As a result of this common goal, we argue that there might be benefits to considering this literature more concretely as a field in its own right. For example, it could offer a forum for engaging with questions about what constitutes knowledge in post-growth welfare systems. It would also provide more opportunities to share ideas between disciplines who may previously have been only peripherally aware of each other's work. There arepractical challenges that accompany this aim too, such as how we can foster coherence within the field without stifling creativity and pluralism. Particularly given the complexity of the welfare system and the many adjacent institutions and processes that are likely to change during a post-growth transition.

Transparent assumptions and systems thinking will form the basis of this work. Most articles in this review dealt with only one or a small handful of elements of the welfare system, and as such they were unable to provide a systematic view of what a post-growth transition might mean for the welfare system, as a whole. Clearly, if taken as parts of a whole, the articles do not provide a coherent vision of a post-growth welfare system. For example, the community-based, decentralised visions of welfare offered by authors like Quilley and Zywert are not *necessarily* compatible with the international, rights-based vision captured in the human needs approach argued for by Gough and others, for which national accountability and regional equality are central. That disparity is not a problem, per se. Disagreement about what should constitute a post-growth welfare system is a necessary and productive part of research. However, due to the partial nature of these visions, it can be difficult to identify the assumptions that underpin them, to understand what they might mean for the welfare system, as a whole, and to fairly appraise them, one against another. Developing frameworks for evaluating visions of post-growth welfare, such as Wiek and Iwaniec's (2014) visioning quality criteria,[16] might offer some way of generating

[15] Hausknost's (2019) article is primarily focused on the conflict between the legitimacy imperative and the ability of the state to enact policies promoting global sustainability, if those policies would worsen the quality of life of citizens.

[16] Wiek and Iwaniec (2014) argue that sustainability visions should be: visionary, sustainable, systemic, coherent, plausible, tangible, relevant, nuanced, motivational and shared. Brief descriptions of each of these criteria can be found in Table 1 of their manuscript.

greater consistency across the field.[17]

Thanks to the crucial role that the welfare state plays in contributing to the wellbeing of many of the poorest people in society, post-growth welfare systems have become a topic of significant interest for post- and de-growth researchers. Further, given the combined risks associated with secular stagnation, demographic changes, environmental degradation and the COVID-19 pandemic, it may also be a topic of increasing importance for social policy researchers more broadly. Drawing together research from a diversity of disciplines, we hope to bring a renewed focus to this important issue, and to open the door to further interdisciplinary discussions.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

We would like to thank three anonymous reviewers for their constructive comments on the paper, as well as Anastasia Loukianov and Ben Gallant for many relevant and fruitful discussions. This work was supported by the Economic and Social Research Council [grant number ES/P00072/X]. It also forms part of the ESRC-funded interdisciplinary research programme at the Centre for the Understanding of Sustainable Prosperity [grant number ES/M010163/1].

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[17] Svenfelt et al. (2019) provide a helpful example of how a visioning methodology could be used in the context of post-growth studies.

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