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Shaping planetary health inequities: the political economy of the Australian growth model

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ABSTRACT

Planetary health equity – the equitable enjoyment of good health and wellbeing in a sustainable ecosystem – is under threat from anthropogenic climate change and economic and social inequities. Driving these major challenges is the global consumptogenic system that encourages excessive production and consumption goods and services that are harming human and planetary health. Growth models lie at the core of the consumptogenic system. This paper examines the sources of economic growth in Australia, the coalitions that sustain this approach politically, and the implications of these dynamics for planetary health equity. Australia’s consumption-led growth model is underpinned by a combination of rising house prices and a permissive credit regime. This growth model is supported by a dominant growth coalition of producer interests, elements of organised labour, and property owners. The growth coalition has been able to successfully generate growth model policy convergence between the mainstream political parties. In turn this growth model, and associated growth coalition, has undermined the pursuit of planetary health equity in Australia by incentivising and driving excessive consumption, greenhouse gas emissions, and economic inequality.

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Introduction

Addressing the excessive production and consumption of fossil fuel-reliant goods and services, and the resulting impacts on climatic changes and social and health inequities, is one of the most pressing policy challenges facing governments and societies (Friel *et al.* 2022). While the mainstream comparative political economy (CPE) field has a rich literature focused on economic inequality (Esping-Andersen 1990), it has largely ignored climate change (Finnegan 2020), and cross-national political economy of health research has been limited and primarily confined to the public health literature (Navarro 1999, McCartney *et al.* 2019). By contrast, the ecological economics literature identifies a new form of ecological macroeconomics that takes into account health and climate concerns (Fontana and Sawyer 2016, Jackson 2017). However, this literature has yet to incorporate recent insights from CPE concerning the political economy drivers of variation in national economic growth models. Systematic analysis of interconnections between climate change, economic inequality, and health, and their impact on the equitable enjoyment of good health and wellbeing in a sustainable ecosystem – planetary health equity (PHE) – is in its infancy. Understanding these

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interactions is vital to ensuring the survival of human populations and the planet. Conceptually, we understand that driving these major challenges is the global consumptogenic system – the web of institutions, actors, policies, commercial activities, and norms that encourages excessive production and consumption of goods and services that are harming human and planetary health (Friel 2019).

Growth models (GMs) lie at the core of the consumptogenic system, however, the impact on PHE of variation in the operation of capitalism remains unexplored. Using a multidisciplinary approach drawing on insights from macroeconomics, CPE, and public health, we present an exploratory analysis of the underpinnings of the Australian GM, the growth coalition that sustains it, and its implications for PHE. We make three novel contributions and highlight the utility of developing a CPE of PHE.

First, we demonstrate that Australia's GM is reliant on asset- and credit-financed consumption to drive growth. Two primary mechanisms facilitate this dynamic: rising property prices and a permissive environment for credit. Second, we show that this GM is supported and maintained by a growth coalition of interests made up of producer groups from sectors tied to property or finance, labour concentrated in the construction industry, and property-owning Australians. Influenced by this coalition, economic policies of both centre-left and centre-right governments serve to maintain rising asset prices and a permissive credit environment at the expense of other priorities. Third, we highlight how the current manifestation of the GM poses risks to PHE in Australia through its impact on climate change and the knock-on effects for health and economic inequality, plus the risks for climate and health arising from the inequality associated with the growth model.

The remainder of the paper is structured as follows: drawing on the CPE literature, we provide a brief overview of the mechanisms that underpin a consumption-led GM and the dynamics associated with growth coalitions. Following this, we examine Australia's growth drivers in comparative perspective. We then analyse the economic and political foundations of the Australian GM. Finally, we discuss the implications of consumption-based GMs for PHE, with a focus on the Australian case, before providing concluding comments.

Consumption-based growth and growth coalitions

The GM approach established by Baccaro and Pontusson (2016) is firmly rooted in post-Keynesian macroeconomics and focuses on demand drivers which have been understudied in contemporary CPE. By focussing on aggregate demand and distribution, the GM perspective provides powerful analytical leverage on the role of macroeconomic policy and regulation in explaining growth outcomes. Concurrently, GM scholars are developing an analytical approach for understanding domestic politics incorporating insights from both producer group-centric and electoral politics perspectives, providing a novel basis for understanding GM variation between economies (Baccaro and Pontusson 2022).

One key aspect of a GM approach is on how growth is generated. A key distinction between different types of GMs is whether economic growth is primarily a function of exports or consumption. In a consumption-led GM, in addition to wages, there are two separate, but allied, mechanisms that drive consumption: a 'wealth effect' and a consumption-smoothing effect. The wealth effect occurs when households perceive that rising asset prices increase their wealth and therefore boost their marginal propensity to consume (Fuller 2019). The consumption-smoothing effect involves households' utilisation of credit to sustain consumption (Reisenbichler 2022).

By driving household spending and borrowing, and ultimately consumption and aggregate demand – housing markets play an important role in shaping the macroeconomy. Generally, as house prices rise, households either spend more (saving less) due to the wealth effect or can acquire more or cheaper credit stemming from rising housing collateral. The level of borrowing and consumption associated with house price increases is shaped by the nature of credit markets. In economies with deep and well-developed capital markets, house price increases enhance the borrowing and consumption capacity. Muellbauer and Murphy (2008, p. 3) term this the housing collateral effect and note that in deep credit markets, 'Home-owners have easy access to home equity loans, which boosts spending when house prices rise'.

Credit-financed socioeconomic smoothing is the other mechanism by which credit contributes to the degree of consumption in the macroeconomy. This mechanism focuses on the role of credit markets in aiding households to maintain their relative socioeconomic status or consumption, thus driving domestic demand and, ultimately, economic growth. This mechanism is related to the first in that home-ownership may enable access to credit, however credit may also be accessed through other avenues such as personal loans or credit cards.

In contexts of growing income inequality (Dwyer 2018), limited or stagnating wage growth (Wisman 2013), and declines in redistributive government expenditure (Ahlquist and Ansell 2017) and social safety nets (Rajan 2010), a looser regime for credit allows households to deploy credit as a substitute for wages and social protection schemes (Reisenbichler and Wiedemann 2022). In effect, credit markets are constructed in such a way that households can access cheap debt to maintain their socioeconomic position in the face of income shocks – such as a loss of a job or illness – or rising expenditures resulting from either higher rates of overall inflation or price increases in specific sectors such as healthcare, housing, and schooling. For example, for homeowners, home equity lines of credit can help to fill the gap left by limited social protection programmes. This is a symptom of what Crouch (2009) famously dubbed ‘privatized Keynesianism’ – in which private debt is used to support aggregate demand (critically important to the maintenance of consumption-driven GMs).

In the face of rising inequality, households may use credit to mimic the consumption patterns of households higher up the income distribution – i.e. borrowing ‘to keep up with the Joneses’ (Berle- mann and Salland 2016, Coibion *et al.* 2020). Banuri and Nguyen (2021) show that the level of consumption is positively linked to its signalling effect (i.e. whether others can see it), that credit utilisation increases as conspicuous consumption increases, and that increased credit utilisation heightens inequality. This may generate a negative feedback loop in which greater divergences in consumption patterns or inequality between households leads to an ever-greater reliance on debt, further widening the gap between households.

GMs depend on dominant growth coalitions – groupings of economic actors who possess common sectoral interests – for their emergence and maintenance (Baccaro *et al.* 2022). Members are drawn primarily from the ranks of producer groups but also include segments of organised labour. In asset- and credit-led GMs, this coalition might include firms and business coalitions in the financial services, insurance, real estate, and construction sectors; middle and upper-class property owners; and labour employed in the construction sector. There is often a startling degree of collaboration between mainstream political parties with respect to the operation and maintenance of GMs, including the credit-led consumption-driven model (Hopkin and Voss 2021). GMs achieve dominance when parties of both the centre-left and centre-right support their operation. This bipartisan- ship is most evident in crises, when the GM is under threat (Reisenbichler 2022).

The Australian growth model in comparative perspective

This section outlines Australia’s GM and the primary drivers of economic growth. In line with the wider literature on comparative capitalism, insight into the distinctive attributes of the Australia GM is developed through comparison of the relative contribution of aggregate demand in other high-income countries. Australia is compared with two canonical examples of consumption-based GMs (the US and UK) and two countries typically used as examples of alternatives to consumption-led growth (export-led Germany and balanced Sweden).

Figure 1 reports the ‘import-adjusted’ growth contribution of the core components of GDP in each country across two periods, 1995–2008 and 2009–2019 (Baccaro and Hadziabdic 2022). The advantage of an import-adjusted measure of aggregate demand over a traditional decomposition is that it facilitates a comparison of key domestic demand contributors based on their trade intensity (Auboin and Borino 2018). This produces measures of GDP composition that do not overestimate the importance of domestic demand (particularly consumption) relative to exports.

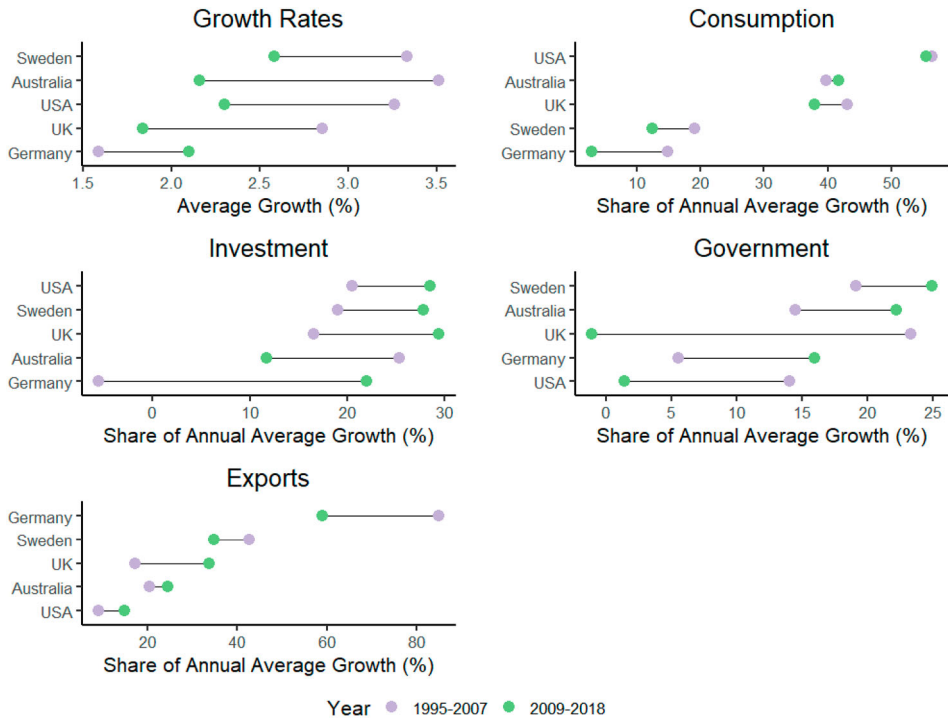


Figure 1. The demand drivers of growth: 1995–2018. Data source: Baccaro and Hadziabdic (2022).

During the pre-global financial crisis (GFC) period, Australian average growth (3.5%) exceeded that of the four other countries. The bulk of Australian growth (80%) during this period was accounted for by domestic demand (consumption, investment, and government), with domestic household consumption accounting for 40 per cent of total growth. This dynamic mimics that of the US, UK, and, to a more limited extent, Sweden where domestic demand accounted for 91, 83, and 57 per cent of growth respectively. By contrast, domestic demand accounted for 15 per cent of growth in export-oriented Germany. In the UK and US, the single largest contributor to growth was consumption – 43 and 53 per cent respectively. In balanced Sweden, the domestic drivers of growth each contributed 19 per cent to total growth. This comparison shows that Australia can be characterised as a consumption-led economy.

Figure 1 also suggests that domestic demand in general, and consumption in particular, have remained key sources of Australian growth in the post-GFC period. Following the GFC, the contribution of investment declined precipitously (–13.7%) while that of consumption (+2%), government (+8%), and exports (+4%) increased. The decline in investment was driven, in part, by the end of the global commodity super cycle and the associated mining boom in which resource firms invested heavily in Australian coal, iron ore, and liquefied natural gas. The net effect of these changes in the composition of growth was to increase the overall contribution of exports to 24 per cent (up from 20 per cent in the preceding period) and decrease the contribution of domestic demand to 76 per cent. As the second largest growth driver, exports are an important part of Australia’s political economy. However, their importance is outweighed by domestic consumption and on par with the contribution of government spending. Similarly, in both the US and UK, post-GFC domestic demand fell while the contribution of exports increased. On the other hand, Germany and Sweden saw an increase in domestic demand and less reliance on exports to generate growth during this period. Therefore, while the relative proportion of contribution among economic drivers changed post-GFC, consumption remains a core component of the Australian GM, as in other liberal economies.

The overall importance of consumption in the Australian economy is associated with the finance and insurance, real estate, and construction sectors – all of which have increased their value-added share of GDP (i.e. the share of output minus the value of intermediate inputs) significantly since the 1990s. This pattern largely mimics that of the consumption-led economies of the US and the UK and is distinct from the path followed by export-led Germany and balanced Sweden (Figure 2). In the 1990s, the Australian finance sector added approximately 7.6 per cent to GDP – similar to the 7 per cent generated by the American and British finance sectors. By the 2010s, this figure had risen to more than 8 per cent in both Australia and the UK and to 7.6 per cent in the US. By contrast, in the 1990s the sector contributed 4.7 and 5.1 per cent to GDP in Germany and Sweden respectively. By the 2010s, this share had fallen to roughly 4.3 per cent in both countries.

Like the finance sector, the Australian real estate sector has grown in economic significance since the 1990s and accounted for 12.3 per cent of GDP in the 2010s – roughly the same contribution as in the US economy over the same period. In comparison, the share of GDP accounted for by the real estate sector in Sweden declined from approximately 10 per cent in the 1990s to 8.5 per cent in the 2010s, and only increased marginally in Germany from 10.4 to 10.9 per cent over the same period. The Australian construction sector, buoyed by cheap credit and investment from the mining and real estate sectors, increased its share of GDP to 8.2 per cent – higher than in any of the four countries over the last 30 years.

The Australian housing driver

The economic and political importance of the finance, insurance, real estate, and construction sectors is related to the interaction of property prices, homeownership rates, and household debt levels (Figure 3). Australian homeownership rates have remained largely stable since the 1970s with 67 per cent of Australia households owning a home in 2021. A larger share of Australians owns their home relative to Americans (64%), Britons (63%), Germans (46%), or Swedes (61%).

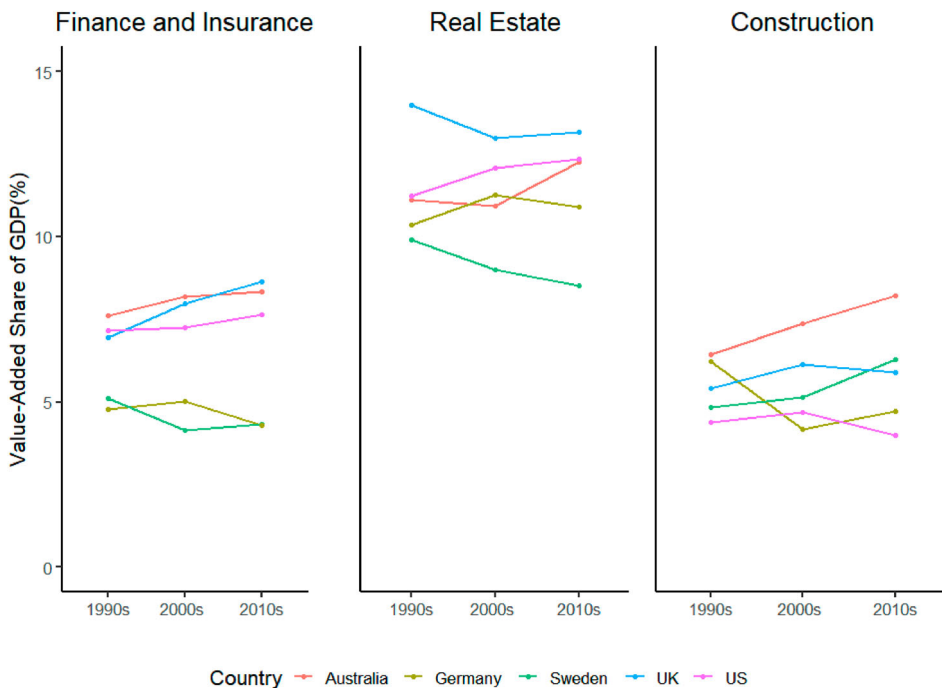


Figure 2. Value-added sources of GDP. Data source: Authors' calculations based on OECD (2022b).

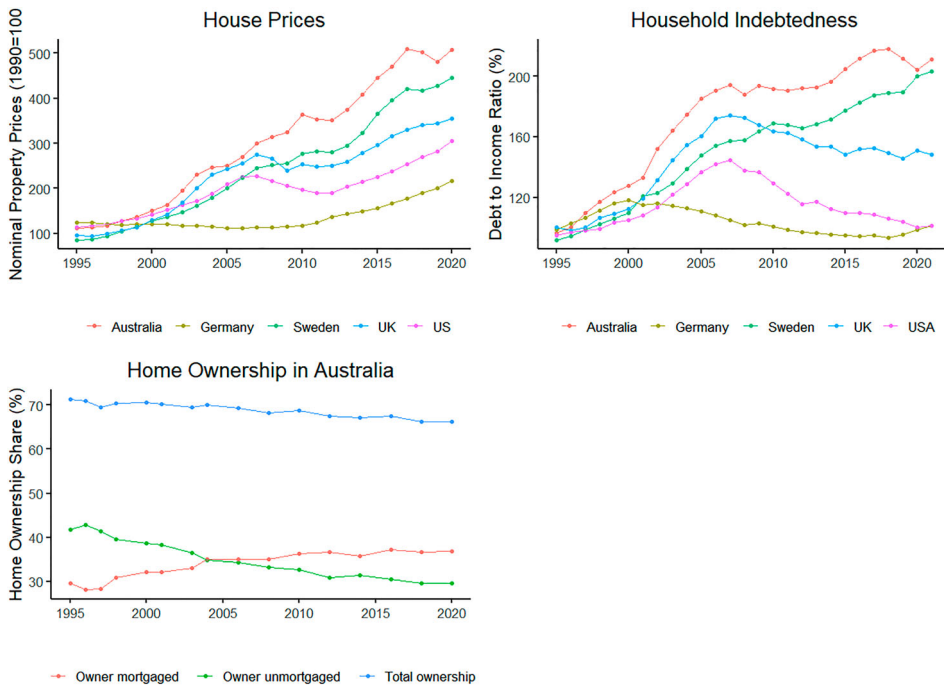


Figure 3. House prices, debt, and home ownership. Data sources: Jordà *et al.* (2016); OECD (2022a); AIHW (2022).

However, the composition of Australian homeownership has undergone significant changes over the last three decades. Figure 3 shows a clear downward trend for ownership rates without a mortgage and an upward trend for ownership rates with a mortgage. Increases in house prices and changes in homeownership are intimately linked to increases in household debt levels. Australian real estate prices have quintupled since 1990. This stands in contrast to Sweden where prices quadrupled, the UK where prices increased by three and half times, the US where prices trebled, and Germany where prices doubled. Between 1995 and 2020, the Australian household debt-to-income ratio more than doubled, making Australian households the most indebted among high-income countries (OECD 2022a).

Changes in credit conditions in Australia create a link between housing prices and consumption. As credit expands and drives house price growth, increased prices stimulate further consumption. May *et al.* (2019) find that a 1 per cent increase in housing wealth generates a 0.16 per cent increase in long-run consumption in Australia. In 2021, Australian households used rising property prices to increase ‘top-up loans’ (supplementary loans that allow borrowers to use housing equity as security) by AUD\$93 billion to fund renovations, automobile purchases, and investments (Hughes 2021). This is not an artefact of COVID-19 interventions – during the 2000–2006 property boom, home equity property withdrawals increased significantly (Ryan-Collins and Murray 2021).

The emergence of the contemporary GM in Australia began in the 1980s and 1990s, with fundamental changes to the credit, mortgage, and housing markets (Morris 2021). The Hawke-Keating government liberalised foreign investment and engaged in broader deregulation of the financial service sector including the abolition of interest rate controls on loans. These efforts increased the number of financial products – including those related to mortgages – and expanded credit to consumers and firms (Black *et al.* 2012). At the same time, banks increased their involvement, and exposure, to mortgage markets. Housing lending accounted for over 60 per cent of total private credit in 2017 – up from less than 25 per cent in 1990 (Li *et al.* 2022). Combined with the privatisation

of social housing (Pawson *et al.* 2019), these dynamics contributed to the development of an asset and credit-driven consumption-led GM.

The current Australian economic governance architecture provides strong incentives around property investment. Primary places of residence are exempt from capital gains taxes (CGT), can be rented for six years CGT-free, and are exempt from means-testing for social support, while income tax credits can be generated from investment property losses (negative gearing) – benefits that no other asset class enjoys. The capacity to negatively-gear property, i.e. deriving tax credits from investment property losses, strongly incentivises investors to funnel capital into the property market over other economic sectors. By contrast, even in the property-reliant US, negative gearing is not permitted and only USD\$250,000 from the sale of a primary place of residence is tax-excludable.

Australian government responses from both the centre-left and centre-right in moments of crisis highlight the importance of the housing market in the GM and the dominance of the growth coalition. Australia weathered the GFC comparatively well, partly thanks to minimal exposure of Australian banks to toxic US housing securities and ongoing significant resource exports to China. However, despite relative economic strength, the Labor government stimulated the housing and construction sectors to drive consumption growth (Kennedy 2009). Similarly, in response to the COVID-19 pandemic, the Liberal Coalition government boosted the housing and construction sectors through a number of demand-side interventions including grants for new construction and renovations, government guarantees for first-time home buyers or builders, changes to the amount of money that could be released from superannuation deposits to fund homeownership, and a mortgage deferral programme (Leishman *et al.* 2022). The result of these policies was to fuel a boom in property prices (24.6 per cent increase between March 2020 and February 2022) (CoreLogic 2022) and further raise the barrier to entry into the housing market for younger people and low-income households (Morris 2023).

The Australian credit driver

The erosion of wages and increases in economic inequality have been driven, in part, by changes in the institutional architecture of the Australian economy including financialisation and minimum wage policies (Peetz 2018). The combination of financial market depth, extensive lending by banks to households, low maximum loan-to-value ratios, and advantageous tax relief for debt-financed property ownership has resulted in a credit regime that is more permissive than either the US or UK, let alone the more circumscribed regimes of export-oriented economies like Germany (Wiedemann 2021). Retrenchments in welfare institutions combined with a permissive credit environment incentivise households to use debt to fund social consumption (such as healthcare and income support) and social investment (including education and childcare).

Since the 1980s, both Labor and Coalition governments, albeit to different degrees, promoted the deregulation and privatisation of labour and capital markets alongside a tightening of eligibility for government support, private pension plans (i.e. superannuation), private health insurance, and housing, all of which created the conditions for the use of credit by households to smooth income and expenditure shocks. A series of policy interventions during the 1980s and 1990s undermined the post-war Australian welfare state as well as the Fordist wage-led GM. For example, the Industrial Relations Act (1993) started to weaken the wage arbitration system that, until the 1980s, ensured that poverty in Australia was lower than in similar economies and that Australian workers enjoyed more benefits in advanced economies (Castles 2001). Further erosion under Labor and Coalition governments contributed to increasing wage dispersion and decreased labour's total income share (McKenzie 2018).

Concurrently, the trend towards workfare tied social benefits to employment-seeking, shifting the focus of the welfare state from relief and full employment to mutual obligation and active labour market policies (Burgess *et al.* 2000, P. Harris 2001). As part of reforms designed to reduce the size of the welfare state and shift the burden of care onto individuals, measures encouraged the

uptake of private health insurance, pensions, and housing. Typifying the view of home ownership as a nest egg, a recent parliamentary report on promoting economic security for women noted that, '[h]ome ownership is a significant component of the third retirement pillar—voluntary private savings. Some consider home ownership so important that it should be considered the fourth pillar of the retirement income system' (Parliament of Australia 2016, p. 119).

As social and economic protections declined, household expenditures increased, driven largely by housing, education, and health expenses. In 1984, spending on housing accounted for under 13 per cent of weekly expenditure, while in 2016 it represented 20 per cent (ABS 2016). In the same period, increases occurred in weekly education (from 1 to 3.1 per cent) and healthcare (from 4 to 5.8 per cent) spending. These increases would not be particularly problematic if wage growth had kept pace, however it has stagnated or declined over the last several decades (Gilfillan 2019).

With wage growth stagnation, rising household expenditures, and welfare state economising, households increasingly turn to credit and mortgage markets to maintain consumption, generating an asset- and credit-based welfare model in which households tap housing (Parkinson *et al.* 2009) or superannuation equity to handle financial shocks. For example, under the Liberal Coalition government's response to COVID-19, households could withdraw superannuation funds to address financial hardships or employment losses. Highlighting the asset- and credit-based welfare state design, the Superannuation Early Release Scheme was announced before the introduction of direct income support payments and resulted in over 3 million applications and AUD\$31 billion withdrawn from superannuation funds (Bateman *et al.* 2020).

The Australian growth coalition

The Australian GM emerged from and is maintained by an influential coalition of interests from the financial and insurance services sector, the construction industry, increasingly leveraged voters who own housing assets, and centre-left and centre-right parties. The finance, insurance, and construction sector regularly top lists of political donations (AEC 2022), while the oligopolistic structure of the Australian banking sector provides the finance and insurance interests with an enviable position in the commanding heights of Australia's political economy (Bell and Keating 2021). The growth coalition also includes elements of organised labour – including the influential Labor-affiliated Construction, Forestry, Maritime, Mining, Energy Union (CMMFEU) which donated more than AUD\$3 million in 2018–2019 (AEC 2022).

Significant increases in home equity, alongside household debt load increases, created a new class of middle- and upper-income voters with deep interests in the housing market and maintaining easy access to credit. This has generated electoral incentives for the mainstream political parties to further entrench the GM. Relatedly, the inability of either Labor or Coalition governments to combat inequality – particularly wealth inequality – led to incentives to expand credit to households. As Rajan (2010, p. 9) noted, 'Cynical as it may seem, easy credit has been used as a palliative throughout history by governments that are unable to address the deeper anxieties of the middle class directly.'

Beyond the pressures of electoral and producer interests, Australian politicians may also have deep personal interests in maintaining the GM given their individual investments in the property market. As of September 2022, the 227 members of federal parliament owned 510 properties, with politicians from the Coalition and Labor owning 2.4 and 2.3 properties on average respectively. Members of parliament from minor parties and the Greens held 2.1 and 1.3 properties on average respectively (Wilson 2022).

The limited divergence between Labor and the Coalition with respect to housing policy highlights the dominance of the GM. Both political parties implemented demand-side interventions to boost property prices in moments of crisis to spur consumption, both parties support a permissive credit regime, and both parties back the CGT exemption for primary places of residence. Furthermore, the contentious history of negative gearing reforms exposes the growth coalition's power to influence electoral politics to shape the GM through tax policy change. The Hawke government

effectively ended negative gearing in 1985 but rolled that back in 1987 under pressure from, amongst others, the Housing Industry Association, the Real Estate Institute, the Master Builders Federation, and the West Australian government (Holden 2015). Over three decades later in 2019, in the face of ballooning house and rental prices, Labor's attempt to gently modify negative gearing in election campaigning was widely attributed as responsible for their loss. The result of the negative gearing wars led Labor to officially abandon negative gearing reform attempts, highlighting the convergence of the mainstream parties over the GM (R. Harris 2021).

Credit-based consumption-led growth: implications for PHE in Australia

By building an understanding of the Australian growth model, we have begun to unpack the drivers of the consumptogenic system. There are many ways in which economic inequality, poor health, climate change interact. What is clear is that the macroeconomic dynamics of the Australian growth model can be linked to a deterioration in all three areas, as outlined below. The growth model prioritises growth relative to other social and environmental objectives and relies on the housing and credit drivers to achieve that growth. Growth underpinned by these drivers is associated with an expansion in economic inequality, which, extensive epidemiological evidence highlights, is linked to increases in negative health outcomes (Pickett and Wilkinson 2015). Similarly, by incentivising the excessive consumption of carbon-reliant goods and services, including housing, the current growth model is a key driver of climate change, which in turn interacts with social factors that are already impacting health outcomes (Marmot *et al.* 2008) thereby increasing poor health and health inequities.

Economic inequality

Rising house prices are correlated and co-integrated with overall economic inequality. Growth in house prices has exacerbated wealth inequality across advanced economies as it has outstripped income from wages (Piketty and Zucman 2014, Blanchet *et al.* 2022). This holds true in Australia where rising house prices have contributed to both widening economic inequality and increased barriers to entry into the housing market for younger people and low-income households (Davidson and Bradbury 2022). Increases in the income share of the top 5 per cent of households – and associated increase in housing demand – is positively associated with recent increases in housing prices across 15 OECD economies (Goda *et al.* 2021). When access to credit is determined by socioeconomic status, overuse of credit can enhance the spread of economic inequality and contribute to an increased risk of financial crisis (Iversen and Rehm 2022).

Economic inequality poses a particular problem for the stability of credit-driven consumption-based GMs (Galbraith 2012, Stiglitz 2012), such as Australia's. It can exacerbate the exposure of the macroeconomy to changes in credit market conditions, and the resultant risk of economic downturns. As access to credit shrinks, so do asset prices (including housing) and, most importantly, the capacity of households to shield themselves from shocks. This dynamic is particularly problematic in contexts such as Australia, considering the turn towards a welfare model that is contingent on asset prices and access to credit. Evidence suggests that economic downturns – which typically result in unemployment, incomes losses, and increases in debt – are associated with negative health impacts (Frasquilho *et al.* 2015) – which is typically disproportionately borne by poorer households. Furthermore, economic inequality has important implications for health inequities, as described in the following section.

Health inequities

A substantial body of evidence demonstrates a social gradient in health outcomes, varying by a range of social and economic factors including income and wealth. Analysis suggests a correlation between increasing income and good health (de Leeuw *et al.* 2021). Flavel *et al.* (2022) found that the

social gradient in income, wealth, and employment has steepened in Australia, alongside widening inequalities in health outcomes and mortality. Between 2013 and 2017, for example, almost 50,000 more Australians on low incomes died of preventable chronic disease before the age of 75 than those on high incomes. Australian studies have also found associations between socioeconomic status and income levels with elevated psychological distress (Isaacs *et al.* 2018), greater life shocks that generate mental health inequalities (Hashmi *et al.* 2020), higher rates of chronic diseases (Campostrini *et al.* 2019), inadequate dentition (Peres *et al.* 2015), and inequitable use of specialist and non-medical ambulatory care that likely worsens health inequalities (Korda *et al.* 2009).

Three hypotheses help explain the association between economic inequality and health inequities: social capital, status anxiety, and materialist hypotheses (Layte 2012). The social capital hypothesis suggests that greater income inequality in a society increases status differentials between individuals, reducing social mixing across groups and thus interpersonal trust. The status anxiety hypothesis argues that economic inequality damages individual health via psychosocial processes based on perceptions of place in the social hierarchy. The perception of inferiority produces emotions such as shame and distrust that directly damage individual health via psycho-endocrine mechanisms, and indirectly damage social wellbeing and health by reducing social capital within societies. Wilkinson and Pickett's (2009) canonical review found that 70 per cent of analyses indicate that more economically equal societies are better for health and wellbeing. From a materialist perspective, good health requires sufficient income to access basic needs such as housing, education, nutritious food, and healthcare. These material circumstances are influenced by structural factors, including social infrastructure and, when that is lacking, credit markets. The materialist hypothesis suggests that there is systematic under-investment in social infrastructure and services in more unequal societies. Social infrastructure influences the level of individual financial resources through social protection systems, and provides services such as housing, education, health services, and transportation, with knock-on effects for health and premature death (Di Cesare *et al.* 2013).

Aside from the impact of economic inequality on health outcomes, there are a number of ways in which housing access and quality directly impacts health and health inequities: physical qualities (e.g. ventilation, heating and cooling, presence toxins and moulds); amount of living space (e.g. overcrowding and high density living); neighbourhood quality and access to essential services and employment opportunities; duration and terms and conditions under which accommodation is held; and people's capacity to pay for their housing (Foster *et al.* 2011). There is also a psychosocial relationship between housing and health (Wilkinson and Marmot 2006). Increasing house prices can exacerbate the acute material stress and feelings of lack of control over one's ability to live in a pleasant and safe environment faced by renters and recent home purchasers, and drive deterioration in mental and physical health outcomes (Gibson *et al.* 2011). Baker *et al.* (2019) identified that more than 10 per cent of Australian adults in 2016 were living in accommodation that was likely to reduce their physical and mental wellbeing. Those most affected by their housing were low-income public tenants and young people – the same populations disadvantaged by the current GM.

Climate change

Climate change is a risk multiplier, exacerbating and deepening economic and social inequities, compounding pre-existing infectious and non-communicable disease burdens that already weigh most heavily on socially disadvantaged people (Friel *et al.* 2008). Evidence also suggests that in some contexts economic inequality may contribute to climate change, as some highly equal societies don't have the soaring levels of conspicuous consumption evident in less equal societies (Dorling 2017). Permissive credit regimes may contribute to climate change, and related social and health inequities, by stimulating the overconsumption of environmentally-damaging goods and services and driving GHG emissions. Figure 4 suggests that carbon emissions from domestic demand in consumption-

driven economies – particularly Australia and the United States – are higher than in export-oriented Germany or balanced Sweden.

The carbon footprint of households is dominated by the emissions embedded in transport, housing, and food (Druckman and Jackson 2016). In turn, the consumption of goods and services generated by these three sectors is exacerbated by the wealth and housing collateral effects which underpin the Australian GM. Increases in the average size of homes across advanced economies (Ellsworth-Krebs 2020), particularly in consumption-driven economies like Australia, have occurred against the backdrop of rising property prices. Similarly, wealth and income are major determinants of transport emissions arising from car ownership and distances travelled by car. A 1 per cent increase in housing wealth is correlated with a 0.5 per cent increase in new vehicle registrations in Australia (Gillitzer and Wang 2016) while the average distance travelled by car also increases with income (DITRDC 2016). Food consumption – a generally less discretionary item – does not appear to be as sensitive to shifts in the economic fortunes of households as housing or transport consumption (May *et al.* 2020).

There are major environmental impacts stemming from the excessive consumption of housing and transport. The average size of Australian housing has increased from less than 50.2 m in the mid-1970s to more than 80.2 m by the 2010s, which is significant as house size is the largest determinant of domestic energy consumption (Huebner and Shipworth 2017). Increases in average house size – despite increases in energy efficiency standards and regulation – can be linked to higher CO₂

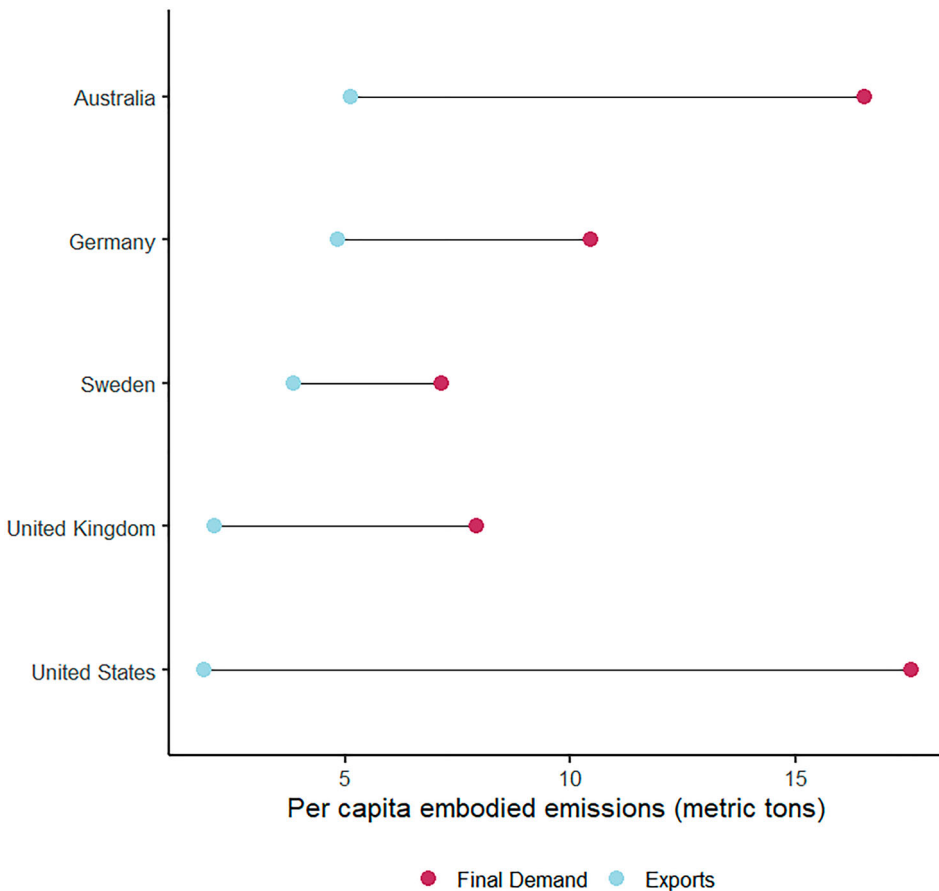


Figure 4. Carbon emissions embodied in GDP. Data source: OECD (2021).

emissions, waste to landfill, and water use (Clune *et al.* 2012). By the same token, new vehicle manufacturing – particularly of large vehicles – as well as emissions resulting from commuting long distances is associated with higher carbon emissions.

Conclusion

Using Australia as a case study, our analysis highlights the utility of a GM perspective in examining the relationship between the consumptogenic system and PHE. We show that the Australian GM has become more reliant on domestic consumption fuelled by rising house prices and a permissive credit environment to drive economic growth. Rising house prices generate a wealth effect which stimulates consumption as well as increasing the capacity of homeowners to access debt to fund consumption. Permissive credit markets allow households to maintain consumption in the face of stagnating wages, rising costs, and a more restrictive welfare state.

This GM is maintained by a powerful growth coalition of producer interests, elements of organised labour concentrated in the construction sector, and property owners. This coalition has been able to dominate the quiet politics of macroeconomic policy as reflected by the policy convergence of the major political parties on access to credit and property prices. These key drivers of the Australian GM have created conditions that undermine economic equality, drive health inequities, and create excessive GHG emissions that contribute to climate change. Our findings suggest that the GM in Australia is incoherent with the government's climate change commitments, and with health equity goals and planetary survival more broadly.

When GMs degenerate and are no longer able to deliver sufficient benefits to supporters, new forms of politics, policy issues, and, ultimately, alternative GMs may arise. This leads to a number of interesting questions: can GMs continue or recalibrate or adapt in the face of exogenous and endogenous PHE-related challenges? What are the processes by which growth coalitions represent their interests in politics? How are interests within growth coalitions aggregated or ordered? Can PHE interests be elevated within growth coalitions?

By highlighting the importance of growth coalitions in institutional design, the composition of GDP, and in determining PHE outcomes, this paper speaks to the relative lack of research around the political economy drivers of macroeconomic factors in the ecological economics literature. This paper has only scratched the surface of the relationship between different forms of capitalism and PHE. Comparative political economists and political scientists are particularly well-placed to unpack variation in policies impacting on PHE across capitalist economies. It is our hope that this paper encourages more comparative scholars to work towards the development of a CPE of PHE. Fundamentally, it is essential to understand these issues to navigate the future and ensure the survival of human populations and the planet.

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