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Title: Risky business: A Minskyan analysis of the development of interest-only mortgage lending in Australia

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Statement of Originality

This is to certify that to the best of my knowledge, the content of this thesis is my own work. This thesis has not been submitted for any degree or other purposes.

I certify that the intellectual content of this thesis is the product of my own work and that all the assistance received in preparing this thesis and sources have been acknowledged.

Thesis Abstract

Australia's housing market has boomed through decades of continued economic growth. This boom has fuelled rapid house price rises while increasing financial risks across Australia's economy. Public and scholarly discourse tends to focus on the need to reform broad economic determinants that have shaped these risks, such as taxation regimes and planning regulations. Less criticism and attention is given to mortgage products that encourage and enable financial risks, such as interest-only mortgages.

Interest-only mortgages enable borrowers to pay 'interest-only' (and no principal) on a loan for a set period of time. These mortgage products have played an important role in the rise of developed housing markets globally. My research aims to use the work of Minsky to explain and contextualise the role of these interest-only mortgages in Australia's housing market rise. In doing so, I will demonstrate how Australia's regulatory regime regarding these financial products has created new systematic financial risks that should be addressed by policymakers.

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Introduction

Since 2000, Australia's housing market has risen to become one of the most unaffordable in the world (Cox 2023). Australian borrowers who have sought to buy into it now hold some of the highest levels of mortgage debt across developed economies (OECD 2021). This shift has been sharp. Popular finance books from the early 2000s indicate how dramatic this shift has been. One book approvingly quotes a global study from 2000 which showed Sydney was one of the top five most affordable cities globally, where USD 250,000 could:

> 'secure you a 3000 sq/ft residence consisting of four bedrooms, separate ensuite, formal lounge, formal dining, combined family kitchen overlooking a glass atrium, in-ground pool, double lock-up garage, and spacious landscaped gardens.' (Clitheroe, pg. 214-15)

Even adjusting for inflation, some twenty years after this study, an aspiring homeowner would struggle to find a one-bedroom apartment for this same cost in the Greater Sydney area.

The rapid growth in housing values across Australia's capital cities through this time has far outstripped waged income growth, particularly for low-to-middle-income workers. Those Australians who have bought into the housing market in this period, while perhaps feeling secure, are often left to manage household budgets that must meet high mortgage repayments while still supplying their daily needs. This is a difficult position for those who have experienced no growth in real wages – or worse, real wage cuts.

Financiers, media commentators, and academics have highlighted some of the critical driving macroeconomic forces behind Australia's housing market rise: record low interest rates, taxation and planning policy settings, and lending policies from the banks, among other factors. Less attention has been given to the financing products that Australians have used to access the housing market, particularly alternative mortgages. Yet, if these forms of financing didn't exist, Australians wouldn't have been able to take on the level of financial risks that they have.

Further, assessing how Australians have used alternative mortgage products to access housing through this period leads to critical questions for Australia's financial regulators and their attempts to stabilise Australia's financial system. Australia's banking and financial services regulator (the Australian Prudential Regulatory Authority or APRA), the central bank (the Reserve Bank of Australia or RBA), and the Australian Securities and Investment Commission (ASIC) all hold to promoting 'financial stability' as the central aim of their activities. Yet, they have undertaken minimal reform of Australia's housing finance market in this time, allowing Australians to take on ever higher levels of financial risk creating the conditions of future financial instability. How and why have Australia's financial regulators increased financial instability, even as they have sought to promote financial stability? This essay will explore and unpack this question with reference to Australia's most popular alternative mortgage product, the interest-only mortgage.

This essay has been developed to begin to explore the origins, development, and impact of a particular financial product, interest-only mortgages, in Australia's housing market up to 2021. It will focus on the role interest-only (hereafter IO) mortgage products have played in Australia's rising housing market. It aims to contextualise the rise of IO mortgages in Australia, by analysing the historical development of interest-only lending in Australia, mapping the regulatory responses to IO mortgages, and investigating the risks these mortgages pose to Australia's financial stability. In doing so I will demonstrate the regulatory failures and government policy decisions that have supported the proliferation of risky IO mortgages to promote 'financial stability' to create a profitable banking sector in Australia. This includes regulation that, with the stated aim of stabilising the banking sector, has concentrated IO mortgage product lending risks inside Australia's major banks. Finally, it will detail a potential option for product reform that could be embraced by regulators to curb the worst risks associated with IO mortgages.

The impetus for this thesis came from my personal experiences working within the banking sector in Australia. Through this time, I began to appreciate the role alternative mortgages and particularly interest-only mortgages were having in driving higher housing prices and higher risk-taking from borrowers as Australia's housing market rose to its 2021 peak. This work is not written from a perspective of seeking to speculate on the future impacts of inflation or other new cost pressures on Australia's households that have emerged more prominently since 2021. It is instead written as a critical analysis to explain both the origins of interest-only lending in Australia and the role interest-only mortgages played in Australia's housing market rise until 2021. Understanding these developments is central to grasping the full scope of the ongoing risks posed by interest-only mortgages to Australian households and the broader Australian economy.

To understand how IO mortgages function it is best to compare them to the primary form of mortgage finance available in Australia, that of the Principal and Interest (P&I) mortgage. P&I mortgages allow financing to borrowers on terms generally up to 30 years on a residential property, which requires a standard repayment to be made on a weekly, fortnightly, or monthly basis. On a P&I mortgage, a standard repayment covers interest on the loan and a portion of the principal of the loan itself. Mortgages of this kind are referred to as 'vanilla' loans within the banking sector, as they are generally viewed as plain products that contain no specific features beyond the standard P&I repayment and lending terms (i.e., mortgage rate and repayment schedule). IO mortgages may follow a schedule like P&I mortgages for the borrowing period, such as repayments over 30 years, but allow the borrower to begin the repayment cycle by first repaying a period of 'interest-only' on the loan for a set time (generally three to five years) rather than a combined principal and interest repayment. While this reduces the cost of the initial repayments for the borrower, the amount not paid on the loan principal is deferred to be repaid at the end of the 'interest-only' period.

The Australian Securities & Investment Commission (ASIC) through its moneysmart.com.au website (2022) maintains an interest-only mortgage calculator which shows a clear distinction between the repayment cycle of these two mortgages. For a $500,000 mortgage on P&I terms at 4% interest over 30 years, monthly repayments equate to $2,387 per month, totalling costs to the borrower of $859,348 by the end of the mortgage. Compared with an IO mortgage over the same 30 years, with the first five as 'interest-only' the borrower pays $1,667 per month for the IO period, before switching to higher repayments of $2,639 per month. Over the life of the loan, the borrower pays a higher total cost of $891,755 for the same initial loan. This example does not consider any changes that may occur to either borrower's mortgage rate.

Mortgage rate movements should be a critical consideration for IO borrowers as, unlike a P&I mortgage, IO mortgage borrowers are required to undergo another loan assessment at the time of the IO period ending to assess whether they can make the upcoming higher principal repayments. As such, the intrinsic features of IO mortgages requires borrowers to strictly govern their financial behaviours to increase their ability to repay and appear financially secure (Aitken, 2007). The Reserve Bank of Australia has noted that the structure of these alternative IO mortgages means IO borrowers will be 'indebted for longer' and face 'greater credit risks' and if 'loan balances stay high, there is an increased risk of borrowers falling into negative equity should house prices decline'. (Reserve Bank of Australia, 2017).

The proliferation of IO mortgages in Australia should be of immediate concern to regulators, particularly as house prices continue to outpace wages. It should be clear what is at stake when households take on large levels of debt in anticipation of continually rising asset values. We only need to turn to the recent experience presented by the Global Financial Crisis (GFC). Collapsing asset values, unpaid debts, foreclosures, and widespread job losses, are all social consequences of what occurs when there is a fast and sharp collapse in asset values. It was these economic events and their impact that brought renewed attention to the work of Hyman Minsky, given he was an economist fundamentally concerned with explaining how financial stability bred the financial instability of the GFC. No less than the New Yorker dubbed this heightened interest the 'Minsky Moment' (Nast 2008).

Minsky himself was particularly concerned with the social consequences of economic collapses, having seen the impact of the Great Depression on families as a child. So formative was this experience, that one of Minsky's earliest works was a collection of papers brought together as a work entitled 'Can "It" Happen Again?', "It" being the Great Depression. In this work Minsky articulated how, even as he believed that the financial instability generated by capitalism was 'inescapable', he was yet eager to encourage reform that would shape a new set '…of institutions and interventions that can contain the thrust to financial collapse and deep depression…' (1982, p. vi). This pressing desire for reform to avoid the worst social consequences of economic collapse remained with Minsky over his academic life. Even in papers written late in his life, he advocated for continual reform of capitalism and its associated functions and institutions:

> ‘A great deal of the tax and the spending programs in place have their origins in the measures undertaken to overcome the great depression of the 1930’s…In their present form and in the light of a capitalism which has not had a serious depression for half a century they may not be appropriate. No institutional structure will be efficient forever…’ (1996, pg. 10)

These concerns about the need to continually reform taxation settings, financial institutions, and government policies are visible even in current debates regarding the financial forces that shape the Australian housing market.

Minsky’s approach calls for us to critically analyse the economy and the developments within it that can generate severely negative social consequences. This essay has been shaped in line with what I consider to be this Minskyan socially focussed analysis. It investigates the role interest-only mortgages have played in Australia’s housing market rise. This rise has been driven, in part, by these mortgage products which have supported soaring asset values in Australia’s housing market. I believe this approach has been a fruitful one in assessing the institutions and institutional policies and practices that require reform to avoid severe economic harm occurring. Like Minsky’s time, when investors piled into rising asset values in the form of the stock market, our time is notable for its frenzied housing finance activity. This has led to borrowers taking on record levels of private debt to access housing.

For these reasons, financial products deserve deeper critical analysis than they are currently given. They are not merely inconsequential market appendages in grand narratives of the development of market economies, or a history of economic exploitation. These financial products are the means through which individuals gain access to assets. Minsky followed Keynes’ in this regard in agreeing that finance is the ‘veil’ through which one accesses real assets (Minsky 1977). Further, financial products act as an intermediary between a lender and a borrower that desires to access assets. Containing within them terms and conditions - which must be met - products create a binding partnership which must be maintained and managed to access assets.

In markets where asset values rise, alternative financial products frequently become more popular, increasing the financial obligations and risks that individuals take on to access and grow their assets. Equally though, products are governed objects. Governments can ban or legitimise them, regulators can promote or curb them, and banks can encourage or discourage their uptake. On occasion, when financial products are seen as proliferating serious harm, they can be banned or changed by legislation. In advanced economies like Australia, this can occur relatively frequently. Payday loans above 10 per cent of an individual's income have been banned through legislation (Read 2022) and credit cards amended to not be accepted for use in online gambling (Visentin 2023). Therefore, in as much as financial products are not banned, they also tell something about the level and types of financial risks governments and regulators are willing to let agents take on in their pursuit to acquire assets in a market economy.

Because financial products are historic and contingent objects they change continually as the conditions of the economy change. As they change the risks they present also change. As Minsky saw in institutions, so too with financial products; to avoid serious social harms, financial products require constant reform that recognises how the economic conditions they exist in are changing them in turn. Positive reform can counteract products exacerbating higher financial risks that contribute to financial instability and potential social harms. Because these products and their associated risks are not static, significant questions should also be asked about how they are governed. Have governments and regulators permitted a given financial product onto the market that creates financial instability? Are banks pushing products that promote outsized and dangerous risks to borrowers? Are borrowers contributing to systemic financial instability by embracing increasingly risky mortgages? Such questions are central in excavating the institutional, governmental, and market practices that create conditions for financial instability and consequent social harms. Moreover, because products are generated at specific points in history, we can also trace their lineage and origins. Often, these origins demonstrate radical differences from the rationale and use of these products in their initial forms when juxtaposed with their contemporary versions. Investigating these histories can help chart alternative courses for product reform when these origins are clearly understood.

The story of how IO mortgage products grew to represent over 40% of new home lending by the mid-2010s in Australia is a complex one. It requires an understanding of what IO mortgages are and why these products contribute to financial instability and encourage higher uptake of financial risk by mortgage borrowers. Chapter one of this thesis investigates and utilises contemporary theories in both political and cultural economy theory to draw out how IO mortgage products create new and unforeseen risks for borrowers. Utilising the work of Hyman Minsky and recent developments in the social studies of finance, I detail an analysis of how IO mortgages drive what I call 'material risks' for borrowers that carry these products in their portfolios.

This analysis also details the risks of these products when paired with high-debt mortgage financing in a rising housing market. Drawing on empirical evidence from the GFC, I detail the role IO mortgage products have had in driving financial risk across rising housing finance markets globally. These risks are often underappreciated by Australian financial regulators who favour a policy posture of non-intervention in regulating banks and borrowers taking out higher mortgage-related product risks. In contrast to political economists who focus on the role that speculative financing has as a central consideration in interest-only mortgage lending, I argue that the underappreciation of the ongoing, material risks associated with IO mortgage products should be of more regulatory and social concern than the Minskyan forms of financing these products fall into, which are liable to change.

Chapter two of this thesis builds on this by providing a historical account of how interest-only lending developed in Australia. This historical context is critical to understand both the, arguably, positive social origins of interest-only lending in Australia and potential pathways for reform of these products that would be in the public interest. The first section of chapter two investigates in detail the origin of interest-only lending in Australia, including the inception of the first forms of interest-only lending in Australia and the rationale for their implementation. The second section of chapter two builds on this picture by detailing the role IO mortgages played through the development of Australia's housing markets in the mid-20th century, and their utilisation in discourses regarding a new emphasis on private home ownership in Australia. Finally, section three of chapter two details the impact these developments had in changing the nature of interest-only lending in Australia from a form of public financing focused on developing Australia's economy to a financing vehicle designed to support the development of private wealth in the housing market.

Chapter three of this thesis goes into further detail on how these developments have resulted in higher financial risks being taken on by Australian borrowers, particularly in the post-GFC environment. Specifically, chapter three focuses on the role Australia's financial regulators have had in supporting the build-up of financial risks (and consequently exacerbating financial instability) by allowing Australia's major banks to write large swathes of IO mortgages after the GFC, and by failing to appropriately intervene to curb interest-only lending that was not in line with regulatory guidance. In chapter three section one I detail at length how Australia's financial regulators, particularly the Australian Prudential Regulatory Authority and the Reserve Bank of Australia, allowed IO mortgage risks to flourish under their watch after the global financial crisis. Specifically, I argue that by failing to focus on expanding financial risks in Australia's booming housing market and failing to appropriately enforce existing credit laws, Australia's financial regulators allowed the major banks to increase the level of financial risk that Australian mortgage borrowers were taking on and these moves resulted in the regulators contributing to financial instability in the housing market.

I provide further details in this chapter on how the lack of appropriate regulatory reform by Australia's financial regulators, allowed IO mortgage lending flows to be concentrated inside Australia's major banks. In doing so, not only was the competitive market for IO mortgages undermined, but Australia's major banks were also able to use their existing market power to cement themselves as the biggest lenders of IO mortgage products in the country. I claim that these developments were both aided by poor interventionist regulation that encouraged anti-competitive lending in Australia's mortgage market, including the Australian Prudential Regulatory Authority's nonproportional 30% cap on new interest-only lending to Australian banks proportional to the size of their books, and the Reserve Bank of Australia's term funding facility launched during the COVID-19 crisis (again applied non-proportionately) allowing Australia's major banks to consolidate their market power in an already oligarchical market. Finally, this section provides context on lobbying efforts applied by the major banks to ensure they could continue lending credit at high levels in the housing market. I also discuss the resulting issue of moral hazard that has potentially arisen inside these institutions by being marked by Australia's financial regulators as systematically important, 'too big to fail' banks under the Basel II international regulatory regime.

Chapter four crystalises both the historic and theoretical aspects of IO mortgages and places them in the socio-political context of Australian public life. In this context, IO mortgages are revealed to be a tool by which Australian governments are aiming to ensure housing values are maintained while increasing homeownership rates. Moreover, these movements mirror a global shift from governments across the developed world to pass the cost of living towards private citizens and off government budgets, reducing public costs but increasing financial pressures on households. This is visible in Australia through the government-led promotion of new forms of financing, such as reverse mortgages. This chapter ends with a policy proposal for a 'grace option' mortgage that could act as a reformed mortgage product that would shift financial risks traditionally associated with interest-only mortgages to be managed by banks, not borrowers.

Chapter 1: Rising markets, rising risks: How IO mortgage products generate financial risks and instability

Chapter 1, Section 1: Toward a political economy of product: Theorising IO mortgage products between systemic and performativity critiques

Across the developed economies of the OECD, continued rising house prices have had direct adverse economic impacts on those seeking to enter into homeownership. Increasing unaffordability and access to housing for average wage-earners has become visible as a constant pattern across developed economies. Some critics of these developments point to neoliberalism as a governing ideology that has supported this trend through the commodification of housing (Jacobs 2019) the financialization of housing (Byrne and Norris 2019, Rolnik 2013), and the undermining of policies centred on homeownership ownership as a social good, for policies that support the use of housing for wealth generation. (Forrest & Hirayama, 2015)

These critiques echo long-standing Marxian critiques of capitalism. Such as the claim that capitalism fails to supply sufficient social goods for the populations it claims to serve and that it has the propensity to generate economic inequality and financial crises. As noted by Cahill & Konings (2017, pg. 4-6) many popular works have sought to tie developments around the increased marketisation of social goods, like housing, directly to an overarching ideology of neoliberalism that has actively favoured the expansion of markets and a retreat by governments from financing and managing social services.

More recent critiques have focussed directly on the economic inequality that is been generated by capitalism over the long run. Thomas Piketty's Capital (2014) is one of the most recent and prominent works in this regard. Piketty utilises data from the last two hundred years to generate a long-run view of economic inequality. He builds a mathematical account of inequality as return on rents (R) when they overtake the rate of economic growth (G). Hence his formulation for inequality: R > G. Piketty sees that 'the overall conclusion of [Capital] is that a market economy based on private property, if left to itself, contains powerful forces of convergence…but it also contains powerful forces of divergence, which are potentially threatening to democratic societies and to the values of social justice on which they are based.' (2014, pg. 746)

One problem with these system-based critiques is that too frequently when a particular development of inequality, privatisation, financial instability, or crisis emerges, critics will point to the driving ideology of neoliberalism as the overarching cause of the development. Often this labelling stops the deeper investigation of broader social or market dynamics that have occurred alongside these developments.[1] It is as if by identifying a development as 'neoliberal' critics believe they have adequately explained both how and why a given market phenomenon emerged in the way it did. Often this leads to a focus in academic and popular discourse on the macroeconomic settings (i.e., monetary policy, planning law, tax settings) that shape housing markets, rather than a broader analysis that reveals other localised factors, like bank policy settings or financial product choices by consumers, as determinants of market outcomes.

Due to this, in critiquing policies that drive marketisation and financial instability across developed capitalist economies, critics tend to miss the often bland and seemingly innocuous policy interventions (and non-interventions) by regulators that encourage financial instability - even as they are charged to avoid it. For instance, regulators can struggle with how to accurately capture risks and asset valuations across the banking sector. (Mugge & Stellinga 2014, Christophers 2015) Such valuations can be impacted by existing institutional policies, market diversity, product variability, or risk management practices, just as much as by familiar 'neoliberal' concepts of market expansion or corporate power.

Due to these limitations, the overarching framework of the critics of neoliberalism often misses the challenges that large institutions face in trying to evaluate, manage and control the social, institutional, and financial forces that drive economic inequality or financial instability. One way of resisting, or deepening, these basic criticisms of neoliberalism is through a more thorough investigation of how financial practice shapes markets and market agents. The social studies of finance has emerged in recent years as a field focussed on the critique and analysis of the interaction of financial practices and measurements and the shaping of markets and market agents (De Goede, 2005, Mackenzie 2006, Callon 1998 & 2021). One focus of the social studies of finance is highlighting how financial practices, that are often taken for

[1] I do not seek to infer from this claim that all critics of neoliberalism intrinsically fail to acknowledge the social and political forces behind the concept of neoliberalism. My claim is simply that in much of the popular discourse criticising neoliberalism, as an ideology or a concept, the underlying social, political, or market forces tend to be under analysed or underrepresented. Recent scholarship in political economy is questioning how neoliberalism as a concept is problematic (see Venugopal 2015) and tends to be 'often used as a catch-all category or as a category that catches selectively whatever a particular author chooses and disapproves.' (Dunn 2016)

granted in market analyses (e.g., calculation, measurement, system use), are not only the operating schema of markets but in themselves work to craft agents for the market.

This focus on performativity in finance reveals how performative practice itself shapes agents for the market in a process that Callon (2021) refers to as *agencement*. Studies that have built on this insight frequently detail forms of performativity that shape the motivations and behaviours of agents in a market. By revealing these underlying behaviours and practices theorists seek to provide a critical analysis through a 'shared focus on the heterogeneous ways in which objects and persons (firms, markets, consumers) are "made up" or "assembled" by the discourses and dispositifs of which they are supposedly the cause' (Pryke & du Gay 2007).

Most performativity theorists working in the social studies of finance field do not accept at face value neo-classical economists' explanations of market behaviour (e.g., price signals, rational agency). Instead, they focus on the performative nature of financial practices that shape the objects neo-classical economists claim to be able to neutrally measure and observe. As De Goede notes (2005):

> 'Understanding finance as a performative practice suggests that process of knowledge and interpretation do not exist in addition to, or of secondary importance to, 'real' material financial structures, but are precisely the way in which 'finance' materialises. It is not just the case then that financial knowledge is socially constructed, but the very material structures of the financial markets – including prices, costs and capital – are discursively constituted and historically contingent.'

Particularly important for political economists and social theorists working on the analysis of financial economies is demonstrating how these models, measures, calculations, and governing frameworks are linked to performative financial practices. (see Mackenzie 2006)

As theorists have intensified their investigations of financial practices, concepts of risk – particularly financial risk – have emerged as a central factor in demonstrating the role of performative financial practice in the agencement process. In analysing the role financial risk assessments played in the development of both institutional mortgage-backed securities and sub-prime lending for instance, Langley (2008, pg.6) building on Callon's work (1998) notes that in the lead-up to the GFC, 'calculating tools' and 'technical devices' of risk were especially important…to both the assembly of agency in sub-prime lending' and in bringing these agents into risk calculations and measures.' As retail borrowers were scored and categorised as more or less risky in line with their credit scores, institutions sought to score and categorise risk through credit ratings.

These ratings are often generated in attempts to certify the stability of financial practices (like lending) but fail to successfully capture financial risks adequately. For instance, credit agencies in the global financial crisis provided:

> '…a simple letter rating to all [mortgage-backed securities], in an evidently expert and objective manner by Moodys, Standard and Poors and Fitch as the principal agencies, creates apparent transparency and comparability for investors…Yet, rating also bought a degree of standardization and certainty that would have otherwise been lacking in the risk/reward characteristics of sub-prime MBS.' (Langley 2008, pg. 13)

This is problematic because ratings and lender assessments:

> '…do not take into account the possibility that a future change in economic conditions (e.g., recession, fall in property prices, rising interest rates) will effect not only prospects for an individual borrower, but also the large numbers of borrowers on a lender's books.' (Langley 2008, pg. 21)

The distance between a financial assessment and the real economic conditions of borrowers is critical for two reasons when exploring the dynamics of housing finance, particularly alternative mortgage products. First, it demonstrates that financial risks as weighed, calculated, measured, and rated by financial institutions do not accurately capture the uncertainty and risks that mortgage products carry, especially when they are assessed purely at the individual level of lender and borrower. This is true, particularly of IO mortgage products that carry a mandatory reassessment period where a borrower is reassessed against a higher repayment cycle threshold. Second, these developments explain subtle shifts in the agencement process that change how market agents engage with their assets, much of this work is of direct relevance to deeper exploratory work in theorising the nexus between housing, borrowers, banks, and regulators. It helps explain for instance how developed housing markets with rising prices have created an owner-occupier class that see their houses, not just as secure and safe homes, but as assets to leverage for further financial gain (Langley, 2008).

By critiquing the underlying performativity embedded in financial practice, the social studies of finance provide a way to dredge from everyday financial life a picture of how the 'mundane political economy of finance' (Mackenzie 2018) creates new complex dynamics that require analysis and explanation to achieve a deeper understanding of the role institutions play in shaping the market for housing finance and associated understandings of financial risk and financial instability.

While vital in understanding how financial performative practices shape market agents, by themselves, critiques based on financial performativity tend to miss the material impacts of the gap between performativity and the social consequences of the performative practice in question. To take a simple example, someone who takes out a high-debt mortgage may be described as a 'homeowner' instead of a 'high-debt mortgage owner' from which we can discern an agencement signal in housing discourse that encourages a positive relationship to take on high levels of debt and financial risk to access housing.

However, additional critical analysis that goes beyond performativity is needed in detailing what these performative practices disguise in terms of the 'real' material risks to agents - who frequently have less information on the material consequences of a lending transaction that the performative practices may be hiding. In contrast to this view, some performativity theorists argue that risk should be thought of as more of a performative concept of calculation, rather than a tangible outcome of a financial transaction. Mitchell Dean, for instance, claims that:

> 'There is no such thing as risk in reality… Risk is a way – or rather a set of different ways – of ordering reality, of rendering it into a calculable form. It is a way of representing events in a certain form so that they might be made governable in particular ways, with particular techniques and for particular goals' (1999, pg. 177)

Such claims are often supported by the further claim that concepts of risk are merely performative attempts at calculating an uncertain future that can never be accurately captured in a risk assessment.

Against this view, I argue that risk is not merely, or even primarily, performative. Risk must be understood as uncertainty priced and embedded (however accurately or inaccurately) into market artifacts. As such risk is ever-present in products that an agent holds. This is particularly the case for financial products. Financial products present ongoing financial liabilities to agents and carry real risks (of changing terms, value fluctuations, or increased cash-flow constraints) that persist through time as they are held by the agent. This is true too of alternative mortgage products, including IO mortgage products, which contain looming risks of a higher repayment schedule built into the product itself. The only way the agent escapes these financial risks is to end their relationship with the product. In the case of a mortgage product, this could include the agent selling the underlying asset and paying out the mortgage or paying off the mortgage completely before, or at the end of, the loan period.

Conceptualising risk as a fact of the market that is always with the agent who holds a mortgage product leads us to a more important critical investigation. It leads away from abstract debates and towards critical questions that are central to the rise of financial risks that are generated by mortgage products. Understanding and revealing the ongoing risks and liabilities that these products present to a borrower (and to the issuing bank) will lead toward a political economy of product that builds on the insights of system-based and performativity critiques, not to disregard these insights, but to develop a deeper critique.

Given risks associated with mortgage products are embedded in a product and are carried through time by a borrower, they can be described as 'material' risks. Defining product risks as material risks helpfully conjures up the traditional notion of material risk (i.e., an event that if it occurred could significantly hurt the financial position of the risk-owner) while reflecting that these risks are intimately tied to the product itself (the material) held by an agent. To analyse how and why these material risks have emerged in mortgage products across developed housing markets, an explanation that goes beyond performativity theory is necessary. This is particularly important in investigating the mortgage market, where borrowers tend to own the majority of the financial risks associated with a product. Especially where alternative products, high-debt, or low deposits are present in the transaction between the bank and the borrower. In doing so, however, I will seek to build on – not reject outright – the insights of the current scholarship that is developing in the social studies of finance.

Chapter 1, Section 2: The product and the portfolio: The Minskyan links between IO mortgage product risks and financial instability

The theoretical work of Hyman Minsky provides a means by which to synthesise these insights of performativity and agencement in the social studies of finance, with the claim that there are real risks associated with mortgage products. Like many theorists in the social studies of finance Minsky saw that:

> '…the world we live in is not the world of "the classical economy"; the world is an uncertain world because there are yesterdays, todays, and tomorrows. Furthermore, this is a world in which units have portfolios – assets and liabilities which embody yesterday's views and both earn and commit today's and tomorrow's receipts. In a world with uncertainty, portfolios are of necessity speculative.' (Minsky 1975, pg. 75)

For Minsky, as speculation is built into a capitalist economy, so too are portfolios by which economic agents (or as he calls them, 'units') balance their assets and liabilities. Minsky's work captures something essential about the notion of product. Namely, that products are held by agents, and can represent assets or liabilities depending on economic events and conditions they are affected by. Portfolios, and the products within them, require constant management because the world is uncertain, and portfolios are responsive to the dynamics of markets and external events.

This portfolio theory of capitalist dynamics doesn't disregard the notion of risk, it instead realises risk as an ever-present consideration for an agent attempting to manage the assets and liabilities in their portfolio. For Minsky, risk can be generated by debt products as agents seek to acquire new assets for their portfolios, where the asset value is higher than an agent's net worth:

> 'In order to acquire assets with a market value in excess of a unit's own net worth it is necessary to…emit debt which carries cash-flow commitments that are synchronized with the expected cash receipts, or quasi-rents. A strong-risk averter will engage in this type of hedge financing.' (Minsky 1975, pg. 85)

Rising asset values in Australia's housing market cannot be understood without this insight. It is the desire to access housing assets, which has created record levels of mortgage finance debt for Australians seeking to access homeownership.

Equally though, uncertain economic and financial conditions impact the level of risks linked to the assets and liabilities in an agent's portfolio. These risks require constant management. Hence, agents must strategize how these events external to their portfolio impact their assets and liabilities and their capacity for future financing; '…in a world with uncertainty, where the fates of various capital assets and firms can differ, a risk averter will diversify.' (Minsky 1975, pg. 107) Because Minsky's work has at its core an emphasis on the constant management of a given portfolio, it provides a means to acknowledge the active forces of *agencement* (assessing, calculating, and reducing risk) while simultaneously recognising that material risks are ever-present in a capitalist economy where agents that hold (or seek to hold) assets and liabilities have to finance their positions.

Recent scholarship has reinforced the central importance of the idea of the portfolio in Minsky's work. For Konings (2018, pg. 75), 'the logic of the balance sheet is a key point of reference in Minsky's theories of capitalism…Minsky understands economic units as balance sheet entities, clusters of promises received and promises made.' Because the portfolio is so central to Minsky's work it allows us to locate and investigate where products and their risks lie. Products represent ongoing assets or liabilities.[2] These products, and their embedded risks, are held in an agent's portfolio and subject to the same constraints of an agent's portfolio. Other scholars have revived Minsky's idea of the 'survival constraint' of making obligatory payments when due as another foundational idea and critical constraint on an agent's portfolio in Minsky's work. (Mehrling 1999, Neilson 2019) The 'survival constraint' to source cash and make repayments on time represents a constant challenge to an agent as they seek to grow assets while addressing new financial obligations that could arise through the material risks present in their portfolios.

Minsky's focus on how an agent manages the survival constraint of their portfolio is pertinent in assessing the level of risks agents take on to access housing assets and particularly the cash-flow obligations they take on that are tied to mortgage products. IO mortgage products push these obligations further by increasing an agent's level of material risk through a further repayment event (added principal repayments) after the

[2] It is important to note that the literature on Minsky cited here places a central emphasis on the 'survival constraint' in Minsky's work. Though this is the view I expand on in this work, it is certainly contested territory. Other readings of Minsky's work place more emphasis on the role that monetary and banking systems have in the dynamics of a capitalist economy (such as Wray 2017).

interest-only period. This embeds additional risk in the product and requires heightened portfolio management to ensure the reassessed repayment schedule can be met.

It is important to note that Minsky saw the challenge of portfolio management as one that had to be faced by any agent or institution engaged in financial positioning in a capitalist economy. For Minsky, banks have portfolios just like households, and, ‘Corporations and households can be considered banks, in that they have cash flows to meet and sources of cash from operations (their participation in income production), financial assets, borrowings, and the sale of assets’ (Minsky 1975, pg. 84). In the context of housing finance, this claim entails that both the borrower and lender of a mortgage product have to manage the ongoing risk that the product creates in their portfolios. The bank must manage the risk of their asset (the borrower’s repayments) not meeting the repayment schedule, the borrower must manage the liability of the repayment schedule.

One result of these dynamics is that to grow the assets in their home lending portfolios, banks must continue to extend the level of liabilities they are willing to lend. This requires an appetite to take on more lending risks and promote more risks to borrowers through increasingly riskier products or higher mortgage debts. Minsky shrewdly observes that these risks are frequently asymmetrical. Borrowers are forced to live with subjective risk, banks price their risks into their lending:

> ‘Borrower’s risk is subjective: it never appears on signed contracts…Lender’s risk does appear on signed contracts. For any set of market conditions, lender’s risk…takes the form of increased cash-flow requirements in debt contracts…Lender’s risk shows up in financial contracts in various forms: higher interest rates, shorter terms to maturity, a requirement to pledge specific assets as collateral…’ (Minsky, 1975, pg. 107)

This has been visible in Australia’s rising housing market where lenders have increasingly lent mortgage products on lower deposits (sometimes under 5% of the loan-to-value ratio), under conditions that require the borrower to embrace further risks or meet the lender’s risk conditions to access debt products. This could include getting their parents to be a guarantor for their mortgage, borrowing funds from their parents (Hughes 2022), dipping into their superannuation funds (Derwin 2020), or utilising unsecured debt (Duke 2015) for a deposit.

Because both banks and borrowers extend their financial risks to facilitate new mortgage products in a rising housing market, regulators face the difficult challenge of stabilising financial risks across the economy. In the short run, banking and financial regulation increases costs on banks, impacts investment in the banks, and creates uncertainty as banks, borrowers and investors react to the impacts of regulations. Regulation in the short run hampers the ability of banks to extend their lending to the level they could if the regulation was not implemented. This has flow on effects to the economy, as new regulatory costs can be passed on to borrowers and slowed credit flows can impact the level of lending available to new borrowers. In the long run, however, leaving rising risks unchecked creates more potential for financial instability, as a lack of regulation fails to reign in ever-riskier practices.

Minsky's arguably most famous statement that financial 'stability is destabilising' applies not only when market confidence is increasingly speculative financing is high, but when regulatory non-intervention supports conditions of increasing risk-taking in lending by borrowers and banks. This is even more the case in housing markets with steady, rising house values where borrowers require increasingly higher levels of debt financing to access housing. Again, this activity has been visible in Australia's rising housing market where recently APRA chastised banks (Eyers 2022) for writing just under one in four new mortgages at debt levels of six times the borrower's debt-to-income ratio.

Chapter 1, Section 3: The regulatory challenge IO mortgage products pose across developed housing markets

IO mortgage products are particularly risky products because they have a reassessment period embedded in the product that when due will require a borrower to meet heightened repayments (covering the delayed principal components and ongoing interest). These products exist on a financing continuum that can be more or less speculative, dependent on how a borrower manages their financial portfolio risks. However, empirical data shows an increase in the uptake of IO mortgage products (and other alternative mortgage products) across the housing market, which can be correlated to large financial failures in housing markets. IO product uptake was evident in the lead-up to the GFC across 2008-2009, the United States experienced a significant build-up of IO mortgages across their housing finance market. Credit Suisse data from 2007 (as noted in Baily et al. 2011) demonstrated that the share of IO and negative amortization loans used to purchase a home, as a share of total mortgage originations, had jumped from 2%, 1%, 4%, and 6% between 2000 to 2003 to 25%, 29%, and 23% between 2004 to 2006.

This movement towards alternative mortgages across developed housing markets caught regulators off guard and unprepared. When the full economic impact of the GFC hit advanced economies direct scrutiny of the lending practices that had led to the sub-prime housing crisis followed. Alternative mortgages such as so-called 'ninja' loans in the USA (no income, no job or assets), allowed borrowers to gain access to mortgage financing with little capital or even a robust assessment from the lender of how they would repay their loan obligations. Popular news media still contain manifest mentions of the role 'ninja' loans played in driving the sub-prime housing crisis in the US, that lead to the GFC (see Dillian 2022 and Jetti 2022). Despite these examples, little meaningful mortgage product reform was proposed.

If international empirical evidence of IO mortgage product growth is clearly correlated with the systemic build-up of financial risk, why have regulators favoured a non-interventionist approach to regulating these products? One reason is that IO mortgage products pose regulatory challenges, such as the level of speculation involved in their financing varying greatly based on the individual borrower's portfolio management. In Minskyan terms, IO mortgage products exist on a continuum of 'hedge', 'speculative', or 'Ponzi' financing, with these forms of financing being susceptible to change based on an agent's portfolio management and external economic events, whether they are positive (e.g., an unexpected increase in income, such as a bonus at work or inheritance) or negative (loss of waged labour).

Australia's financial regulators have favoured a broadly non-interventionist approach to rising mortgage debt and product risks in response to Australia's rising housing market, which has been particularly visible since 2000. Indeed, just before the GFC's full impact in late 2008, approximately 35% of new mortgages underwritten (Atelier Wealth 2022) in the Australian housing market were financed on interest-only terms. As regulators didn't intervene to question these lending flows, they left risk management for the increased proliferation of IO mortgage products to banks and borrowers. This has usually been supported by other non-interventionist regulatory moves such as reviewing or testing the internal risk measures of the banks, rather than enforcing new regulations to reign in growing systemic product risks. This has stabilised the financial system in the short run and increased long-term financial instability.

Because regulators have favoured non-intervention in a rising housing market, borrowers have had to embrace risks associated with high mortgage debt and riskier products to access housing assets. Recent narratives in political economy have realised these market movements as a development driven by policy choices by regulatory and financial institutions that have shifted financial risks onto individuals (Bryan & Rafferty 2018, Mian & Sufi 2015). These narratives have become more prescient since the GFC. Some scholars claim that this movement is a process of increased 'financialization' of housing more broadly, in which individuals (whether businesses, persons, or households) are directly required to manage their funds in ways that to some degree mirror how financial markets act (Aalbers 2017). This includes actions such as managing their assets, balancing payments, creating value, and so on.

Bryan & Rafferty (2018, pg. 124) argue that the financial position of modern Australian households is analogous to that of a 'hedge' fund. Australian households, they argue, are increasingly taking part in behaviour like leveraging (I.e., through building equity), taking long-short positions, and 'hedging' against their assets (I.e., through home insurance, etc). For low-and-middle-income families, the household can be a site of 'hedging' due to the broader wage stagnation and cost of living increases in the Australian economy. Bryan & Rafferty's argument is arguably more prescient when reinforced by Minsky's portfolio claim that in a capitalist economy, all agents seeking finance for assets must be planning and acting as ‘banks’, balancing payments and financial obligations. If the household had to act as a ‘bank’ when Minsky was writing in the mid-1960s, then households acting like hedge funds is a conception that recognises the changing nature of material risks that are associated with high-debt, risky mortgage products being brought into an agent’s portfolio.

IO mortgage products with their riskier reassessed repayment schedules, at the macroeconomic level, put upward pressure on house prices and, in due course, expose borrowers to higher financial burdens when material risks are realised at times of financial crisis - be these personal or system-wide. This explanation has become popular with media outlets seeking to explain phenomena such as the GFC (Hobday 2018) but has also been more seriously critiqued as being spurred on by monetary policies that created a set of poorly performing loans in the lead-up to the GFC. Jan Kregel (2008) notes that:

> ‘the vast majority of subprime mortgages were written against adjustable-rate or interest-rate-only repayment schedules that allowed for very low and, in some cases, zero-interest payments for the first few years of the mortgage.’

In a Minskyan sense, Kregel sees the systemic uptake of these products as having ‘an inbuilt decline in their margins of safety.’ Kregel rightly notes that these margins of safety can be eroded if a borrower’s equity or income does not rise, or interest rates rise sharply, in such a case:

> ‘What appears to be a hedge or speculative financing scheme (in Minsky’s terms) in the initial years of the mortgage resets to the equivalent of a Ponzi financing scheme because of the likelihood that the cash commitments can only be met by increased borrowing or refinancing...’ (2008, pg. 14)

Kregel resists linking IO mortgage products solely to conceptual forms of ‘speculative’ finance. His analysis infers that such products should be viewed on a financing continuum, where the nature of the financial risks present to the borrower is, like Minsky, also tied to external economic conditions that (if they deteriorate) can present revised risks to the mortgagor.

Minsky’s conceptual forms of financing can further develop this account of IO mortgage products that are not always ‘speculative’ in this regard. Again, Minsky’s ‘survival constraint’ - the ability to make payments when due – cannot be escaped by banks or borrowers that operate and take on financial positions in a capitalist economy. (Neilson 2019, Mehrling 2015). In contrast to P&I mortgage products, IO mortgage products present a discrete point of reassessment, where the borrower must re-evaluate their financial situation to meet a heightened repayment schedule. Due to this re-evaluative event, the financing of IO mortgage products can be formulated as existing on a financing continuum.

On this financing continuum, IO mortgage products could take the form of 'hedge' or 'speculative' or 'Ponzi' financing dependent on how well (or poorly) the borrower has managed their own portfolio risks and whether the external economic environment has generated new risks in their portfolio. To give a concrete example, a borrower with a singular owner-occupier IO mortgage could comfortably be engaged with 'hedge' financing if they can meet the repayment obligations on the mortgage within the means of their income (for instance, by building equity by making extra repayments on the loan principal or buying other highly liquid assets).

Should a household rely on a sole waged income for repayments (while for instance, a partner is the primary carer for a newborn child) and that income is lost through unemployment, forms of 'hedge' financing could quickly become 'speculative'. Should a stable source of income not be forthcoming, the borrower may be forced to take out new finance to cover the existing debt. Under a Minskyan framework such a borrower would then be engaged in Ponzi finance; '...those that increase debt to pay debt are engaged in Ponzi finance.' (Minsky 1986, pg. 203) Managing and regulating IO mortgage products, whether this occurs by the borrower, bank, or banking regulators, requires constant portfolio management because these forms of finance can change suddenly and create new risks.

The increased financial risks taken on by households over the last 40 years in Australia, particularly through the penetration of IO mortgage products in Australia's mortgage market, is now driving more mortgages from further on the financing continuum, from 'hedge' financing towards 'speculative' and even 'Ponzi' financing. New mortgage products are emerging that aim to meet Minskyan 'survival constraint' issues for households by adding higher financial risks. Reverse mortgages, for instance, allow equity to be released by older individuals who may be 'asset rich, cash poor' in retirement, creating payment flows for the mortgagor but creating new risks for the management of repayments on the reverse mortgage.

IO mortgages claim to assist borrowers by easing the repayment schedule at the start of the loan, creating liquidity, and easing the 'survival constraint' associated with repayments for the household. This is the same justification provided by the Reserve Bank of Australia for allowing IO mortgage products to proliferate. The RBA claims such lending allows households to have a 'degree of flexibility when it comes to repayment' in certain circumstances, such as a two-income family reducing income through parental leave (Kent 2018).

While IO mortgage products might provide flexibility to address Minskyan 'survival constraints' at an individual level, studies have demonstrated that IO mortgages at the macroeconomic level do not lead to increased homeownership. Indeed, one analysis by Backman and Lutz (2018) shows that interest-only mortgages were popular in regions that experienced higher house price growth and increased activity in housing transactions and turnovers. If this is the case, the rising popularity of interest-only mortgages in the Australian mortgage market since 2000 could have played a critical role in a drop of around 10% of Australian homeowners without a mortgage between 1998-2018 and a corresponding increase in mortgaged households and rising levels of renters (Standard & Poors 2019).

This point is made sharper by critically analysing how these dynamics have operated in Australia's market for property investors. Contrary to much popular media discourse, data from the RBA demonstrates that the vast majority of property investors in Australia own one investment property (RBA 2017). From this data, and the aforementioned RBA data that showed 3 in 5 investor mortgages were on IO terms, it is inferable that Australia's average property investor is managing one investment property through an IO mortgage product. If this is the case the risk of any IO mortgage-related defaults or delinquencies would appear to create very negative financial outcomes for these homeowners, given they are unlikely to have other assets to draw upon to meet their survival constraint of repayment in the event of a housing downturn. Further, this same RBA data also demonstrates that middle-income Australians (with salaried incomes between $37,000 and $87,000 AUD) make up the majority of property investors. As such, this group is then comparable to the cohort of homeowners in Mian & Sufi's study of the US housing market (2015) whose wealth in percentile terms of their financial position is tied up in the housing they own.

Without recourse to other liquid assets in their portfolios that can meet these survival constraints (such as cash, stocks, or bonds) Australian homeowners and investors rely on increasing equity in their homes to meet the survival constraint of repayment. This does not account for the additional risks that investors with IO mortgage products take on by being re-assessed after the IO period ends with heightened repayment schedules, based on added loan principal repayments.

It is important to note that as the level of Australia's mortgage debt has grown increasingly large wealth transfers that have occurred between generations, and through transfers from individual retirement funds (as in the case of the superannuation early release schemes) as Australian borrowers try to gather sufficient deposits to put down on record high house prices. These developments resist easy categorisation into forms of purely speculative finance. Arguably, one defining aspect of these developments is the lessening of financial speculation (at least for the lender) as more and more parties are brought into the financial obligation associated with the mortgage (e.g., as loan guarantors). Consider the example of a bank that lends to a borrower who takes out an IO mortgage on their first home, on the condition that their parents act as a guarantor. This would seem to categorise this particular IO mortgage towards 'hedge' financing given the additional finance and the engagement of a guarantor, as opposed to a more speculative IO mortgage that was lent without these additional commitments on the part of the borrower.

This is not to deny that speculation is a driving economic force, especially inside the banking system. As Minsky clearly articulates, '…bankers are always speculators. They are always speculating in their ability to refinance their positions in assets as withdrawals of deposits take place…Bankers speculate also on the composition of their assets. They may very well sell out positions in marketable securities in order to finance additional loans during a boom.' (Minsky 1975, 119) However, banks like borrowers are constrained by their own portfolios, which require constant management. Moreover, where banks can shift risks to borrowers through new conditions (i.e., guarantors, higher mortgage rates) they will do so, even as this heightens the overall level of material risks the borrower takes into their portfolio through the mortgage product. Even as operational functions such as capital raisings and inter-bank lending remain primarily speculative, the ‘survival constraint’ on the bank’s own portfolios requires them to manage the risk in their own portfolios and incentivises risk shifting to other parties wherever possible. This means they must be confident in their own portfolio management (including their corresponding risk measures) in minimising losses from uncertain economic events. This could include minimising liabilities or managing underperforming assets, such as a mortgage going into arrears or defaulting.

This analysis argues that understanding IO mortgage products as existing on a financing continuum is useful in grasping how quickly material risks can shift across this continuum. Again, this is because the form of financing they take is dependent on an agent’s portfolio management and economic externalities. Over time the same product held by the same agent could be ‘hedge’, ‘speculative’, or ‘Ponzi’ financed depending on those conditions. That is why discovering the material risks that IO mortgage products present to the economy (or to borrowers or banks) necessitate a critique of the material risks IO products generate, rather than a particular form of financing they may take at the point of initial assessment, which is liable to shift over the time it is held in a portfolio. Practically speaking, because lenders tend to push risks to borrowers in a mortgage transaction, this analysis is more consequential for borrowers than banks. This is supported by the fact that Australia’s major banks enjoy the in-principal support of the ‘lender of last resort’ function (Minsky, 1986) of Australia’s central bank, the Reserve Bank of Australia, to fund their failing assets in the event of a crisis. Australian borrowers enjoy no such financial support when their mortgages can’t be paid. Yet, the risks of IO mortgage products sit in their portfolios and require management to ensure they can be repaid at the point of reassessment.

As Australian homeowners have taken on IO mortgage products, they have taken on riskier terms and funding arrangements to take on higher debt to access homeownership in Australia’s rising housing market. This has required expanding the risks in their portfolio. Either to themselves (through withdrawing from superannuation) or by bringing more parties into the mortgage transaction (i.e. parents as mortgage guarantors) As these new dynamics have emerged a critical analysis of the material risks that IO mortgages pose to the Australian financial system focus, must not just on the forms of financing these products take but whether levels of financial risks that borrowers take on as they seek to access mortgage debt financing are presenting out weighted risks to them individual and creating systemic financial instability collectively.

In uncovering how these risks have emerged in Australia’s economy, a deeper understanding of the historic origins of interest-only lending can be highlighted. These empirical and historical accounts are powerful because they demonstrate that products are not developed in a vacuum, but build on historic products, political imperatives, and economic developments. Simply put, financial products have lineages. It is these lineages that reveal how a form of lending like interest-only lending, a development which appears as a banal fact of a ‘mundane political economy of finance’ (Mackenzie 2018), can rise to become one of the biggest housing finance-related risks to Australia’s economy. As De Goede notes (2005) ‘writing empirical detailed histories of modern markets shows that markets are not natural givens or a-historical entities, but have been constructed in particular, contingent and contestable ways.’ By revealing these contingencies, this work will provide a context for the rise of interest-only lending in Australia’s economy from its inception into the modern mortgage product it has become. In doing so, the risks to Australia’s economy will become clearer, as will the potential pathway to product reform.

Chapter 2: Contextualising the development of interest-only mortgages in Australia

Chapter 2, Section 1: The history of interest-only lending in Australia's economic development, 1900-1990

The earliest forms of interest-only lending in Australia can be sharply juxtaposed with their predominant contemporary form: the interest-only mortgage. IO mortgages as they currently exist in Australia exist as a financial vehicle for private homeowners and property investors to pay a minimum amount (hence, interest-only repayments) to finance a housing asset. In their contemporary mortgage product form, private parties seek private IO mortgages to realise private capital gains. The earliest forms of interest-only lending were dramatically different to this model. They developed in response to a social problem, instead of a market-driven need for forms of finance that help access housing assets.

As a new nation Australia's capital was scarce, and its banking sector was (like most of Australia's industries) underdeveloped. Growth in Australia's productive capital would require more than forever remaining as an outpost of the British Empire, dependent on her capital flows. To fill this gap, Australia's State and (later) Federal Governments would turn to forms of financing that utilised the higher financial stability of government-backed lending to support risk-taking enterprises, particularly to settlers willing to develop land and make it productive for agricultural purposes. In turn, these programs would aim to lift national production and create a self-sustaining capital base for a fledgling Australian economy.

To understand why interest-only lending originated as it did though, it is important to note the economic challenges Australia faced as a still emerging nation pre-Federation. Foremost among these issues in the mid-1800s was a shortage of adequate housing for a growing population and a need for heighted capital formation to grow national industries. In his history of Australia's economic development between 1861-1900, N.G. Butlin argues:

> 'It was the supply of capital, not land or labour, which placed an immediate restraint on growth at the beginning of the [1860s].' (1972, pg. 39)

Butlin claims the growing pains of Australia's capital market combined with a booming population and housing shortages, made for a bleak economic existence. His insights are worth quoting at length:

> 'In the four eastern mainland colonies, Queensland, NSW, Victoria and South Australia, the quality of permanent housing had fallen steadily and the number of persons in each room housed in these more durable structures had risen greatly. Apart from South Australia, a large proportion of the population, perhaps one-fifth, was still, in 1861, housed in tents or in bark, daub or sod huts…' (1972, pg. 40)

Rural Australia, with its focus on agricultural development, faced further challenges:

> 'In the pastoral industry, sheep-raising outside of Victoria was still essentially pioneering, experimental and nomadic. In the areas where new land was available fencing was almost non-existent, and no attempt had been made to provide for water conservation. Even in Victoria, fencing tended to be primitive and informal; certainly little in the way of wire fencing existed.' (ibid)

As State-governments faced these challenges, interest-only lending emerged as a State-based solution to drive Australia's economic development. The appeal of interest-only lending to these governments was its potential to solve overpopulation in urban areas and develop Australia's agricultural industries. Early examples of this include a 1909 Western Australia's State Agriculture Bank advertisement promoting interest-only lending as part of its appeal to interstate workers to come and establish themselves as farmers in the Western state. Another advertisement in a Melbourne newspaper spruiked access to the 'cheapest land in the world, and the most liberal land laws. 60,000 acres of Crown lands suitable for grazing, mixed farming, dairying and fruit growing.' As part of this farmers could access State Agriculture Bank loans with 'interest-only payable at five per cent, per annum the first five years after first loan is granted; principal and interest repayable in equal annual instalments over 25 years thereafter'. (The Senate. 586, 1909) The added promise of 'free railway passes and the services of land guides and conveyances without charge provided for those desirous of inspecting the land', gives a palpable sense of the Western Australian's governments strong, almost desperate, desire for labour to help unlock the capital gains and growth associated with land development.

Following the resolution of World War I, interest-only lending continued to be utilised by State governments for returning soldiers by allowing them to establish themselves through property finance, for both houses and productive agriculture materials. In doing so, the Australian government sought to develop capital and land, whilst positioning itself as a key exporter of agricultural goods (particularly wool and wheat) to Britain. These economic programmes ensured interest-only lending allowed returning soldiers and new migrants to access financing to lift production of primary goods across the Australian economy.

These interest-only lending programmes also maintained a continuing focus on increased production of agriculture and improved economic activity through land development (e.g., farming, irrigation, land clearing) as they had since the early 1900s. Interest-only lending allowed Australian State governments to meet the aim of increasing capital and land development, while providing social investment for workers to become agriculturalists. With much of Australia's rural development still hindered by the previously noted infrastructure issues agriculturalists had faced since the mid-1800s, this focus remained paramount. Parliamentary records on the New South Wales Financial Assistance programme in this time reveal allowances for provisions not 'exceeding £625…available for every soldier settler on a home maintenance area.' This is followed by a comprehensive list of purposes this capital is allowed for which gives insight into the nature of these loans:

> '(a) The clearing, fencing, draining, water supply, and general improvement of the said land.
>
> (b) The purchase of implements, stock, seed, plants, and such other things as may be deemed necessary to satisfactorily occupy and develop the land; or
>
> (c) The erection of buildings on land owned by such soldier or held by him under lease from the Crown or the Water Conservation and Irrigation Commission.'

These government loans had repayment terms that all contained interest-only repayments as part of their function. For 'permanent improvements' (e.g., housing, fencing) to land a twenty-five-year loan term was to be conditional on interest-only repayments for the first five years. For 'implements' aimed at land cultivation, development and improvement loans were available for six years with on a condition of the first year being interest-only repayments. (House of Representatives 6575, 1920) In Victoria, stamp duty tax cuts, discounted government land, financial advances, and rent-free pastoral lands were all on offer for returning soldiers to put their hand to the plough. As were interest-only lending periods on repurchased estates, for which ‘payments are provided for from thirty years, with, the first year’s interest capitalized, and interest-only for the four and a half years following.’ (House of Representatives 6575, 1920)

These public investment programmes took inspiration from European public banks, such as France’s Credit Foncier and Germany’s Landschaften Bank financing programs, ‘with the object of assisting farmers to make improvements or to develop or utilise the agricultural or pastoral resources of the land’ through property lending. (**A**ustralian Bureau of Statistics, 1920) By the time of the publication of Australia’s census in 1920 it was noted that ‘all Australian states have established systems by which financial aid is rendered to agriculturalists by the Government’. (Australian Bureau of Statistics, 1920) Through the 1920s public investment in land development occurred alongside targeted appeals for British immigration to expand the economy, and the opening of Australia’s export markets for agricultural goods. In the early 1920s Australian Prime Minister, Stanley Bruce laid out his vision of to develop Australia’s economy through ‘men, markets, and money’. It was under this vision that interest-only government lending continued to provide a means by which capital was expanded and developed in Australia in the 1920s and beyond.

Another significant change in Australia’s economic development occurred with a migration boom following World War II. In addition to the migration boom, the Australian Federal Government undertook development of a wholesale programme of government investment in public housing. Acknowledging the deterioration of Australia’s housing stock, the Australian Government committed to funding the creation of new homes for low-income families. These homes could be rented from State Government housing authorities under the newly established Commonwealth-State Housing Agreement first instituted in 1945. By the end of 1956 this agreement meant that ’14.4% of the dwellings that had been completed nationally since [World War II] were built as public housing, 85.4% of the dwellings built in this period were houses’ (Troy, 2011, pg.2) By 1956 however, a re-elected Menzies Federal Government sought to adjust a new Commonwealth-State Housing Agreement to allow for the sale of public housing to private homeowners. Specifically, by ‘diverting 20 to 30 per cent of [Commonwealth-State Housing Agreement] funds to building societies and lending institutions, and encouraging state housing authorities to sell public housing they built with the remaining funds.' (Murphy & Hanley 1995, pg. 7)

This policy shift supported an explosion in private finance, in both the level and in the diversity of financial institutions that grew to support this new market for private housing finance. Writing in the early 1960s Australian economists Karmel and Brunt (1963) suggest that even when considering the 'remarkable growth of diversified financial intermediaries and of sophistication in the capital market' after World War II in Australia, 'perhaps the most dramatic development has been the growth of finance houses, dealing mainly in hire-purchase finance.' (1963, pg. 30). As a precursor of the modern mortgage, hire-purchase and other credit instalment companies grew over sixfold between June 1953 and June 1961 from holding 87 million pounds in assets to 612 million pounds. Building Societies – key beneficiaries of the adjusted Commonwealth-State Housing Agreement – also doubled their asset size during this period. (1963, pg. 31)

Through this period, the Federal and State Governments pulled back from running interest-only programmes to encourage private financing. While interest-only mortgages were not a product offered to private homeowners at this time, the dramatic shift towards private housing financing with an increase in financial intermediaries meant Australia's modern mortgage market had arrived. Despite this shift at an institutional level the Australian Government remained a critical investor in the country's economic development. Indeed, interest-only lending became a function of how the Australian Federal Government organized lending terms for large scale public investments and intra-government lending post-World War II. Australia's debt-laden postal service received interest-only terms on Federal Treasury loans provided to it in 1949 (The Senate 1095, 1949), and when the Australian government in 1957 sought funding from public and private international institutional investors for loans for the (then government-owned) airline Qantas, it was conditional upon loan terms that would 'have a run of about four years free of principal repayments' before repayment of principal. Ensuring that Qantas and the Australian government could take up a 'very good opportunity' to build the capacity of the airline as a 'successful institution'. (The Senate 376, 1957) Even during the development of the Snowy Hydro scheme the project's agreed financial funding arrangements between the Australian

Federal government and the State governments stipulated that ‘until the scheme is about half finished, interest on capital invested in works not yet producing electricity will not be compounded, but simple interest-only will be charged.’ (House of Representatives 1695-1696, 1958)

Forms of this sort of public financing have continued on in different guises in contemporary policy. Of particular note in Australia is the National Housing Finance and Investment Corporation (NHFIC) which, as a statutory corporate body under Australian law, is able to raise bonds for social housing projects. Through the Federal Government’s mandate, NHFIC has successfully over-subscribed bonds that have raised funds through capital markets from institutional investors. Funds raised by these bonds have supported community housing providers (non-profit social/affordable housing providers) to take out loans from NHFIC for 2.07% on ten-and-a-half year terms on interest-only terms between 2020 and 2021. These loan terms have represented equal or greater value to community housing providers as the institutional loans available to them through Australia’s major banks.

Through these avenues, interest-only lending has played a critical role in capital formation in Australia’s economic development. Particularly, its agricultural development. While the Australian Government moved away from utilising interest-only lending for the co-development of land in partnership with settlers and soldiers in the first half of the 20th century, it remained committing to utilising interest-only financing as a key means to support institutional investment in Australian public enterprises. It was not until the very end of the 20th Century that interest-only products again became available to Australians at a consumer level. Though this time not in the guise of public investment in land development, but in the form of a new riskier interest-only product in a burgeoning mortgage market. This fundamentally changed interest-only lending in Australia. Of critical note is that while these new private interest-only mortgage products still required the borrower to take on risks associated with interest-only lending the government was no longer a co-party in the risks of the lending.

Chapter 2, Section 2: Interest-only mortgages, deregulation and housing finance expansion in Australia 1990-2021

Australia saw a meteoric rise of alternative mortgage products from the mid-1990s Australia as part of a windfall in the diversification of financial products and services in housing finance. This decade of innovation was spurred on by an ‘elite driven’ (Kelly 2000) deregulatory reform agenda of the Australian Labor Party under the Hawke and Keating governments. Under the Hawke and Keating regime Australia again underwent categorical economic change. A broader policy of free trade, the Australia dollar being floated, and foreign banks being introduced to the Australian market were all hallmarks of this broad economic shift. The flow on effect of these policies culminated in a bipartisan political endorsement of the independence and low-inflation targets of the Reserve Bank of Australia. It is hard to underestimate the swift and sweeping changes that took place in Australia’s financial economy at this time.

In 1991 the privatisation of the Commonwealth Bank of Australia saw it morph from a publicly owned entity to a one of the largest ASX listed companies. Overnight, millions of Australia’s mortgages left government control and entered the private market. Further, the Commonwealth Bank of Australia became a mortgage product innovator. Regulatory changes to Australia’s financial system were enshrined with the handing down of the Wallis Report in 1997. Responding to the ballooning growth in the financial services sector, the report recommended the Reserve Bank of Australia’s supervisory role over the financial services sector be passed to a new institution the Australian Prudential Regulation Commission (now the Australian Prudential Regulatory Authority). This new institution was to ‘provide integrated and consistent supervision of financial institutions for safety purposes’ whilst also developing ‘upon the existing achievements of financial deregulation’ that had created the economic conditions for its existence and mandate. (Hanratty 1997)

This paradoxical movement of increased regulatory response due to financial deregulation is explained in part by the flourishing of new players and products into the Australian market to provide financial services throughout the 1990s. New products, banks, mortgage managers, and mortgage brokers entered the market and consequently developed new practices in housing finance, including increased re-financing activity and access to non-traditional sources of funding. Non-bank lending for instance was a phenomenon that grew distinctly from a period of financial deregulation in the 1980s. From being virtually a non-existent part of the financial sector, non-bank lending rose to account for ten per cent of all outstanding residential mortgagor debt by the mid-2000s, only dropping below this benchmark during the Global Financial Crisis. (Reserve Bank of Australia 2019) With an expansionary financial services sector came cheaper mortgage rates for consumers through the presence of increased competition for residential mortgagors. Broader access to lending also grew from the move from a high-interest rate environment in the 1980s to a lower interest rate environment in the 1990s, increasing the depth and breadth of mortgage lending available to low-income households in particular.

Crucially it was these new products that created new avenues for Australians to access more mortgage debt (Gizycki & Lowe 2000). These products were geared to bring new types of Australian consumers into the financial system that had previously been unable to access credit. Including, Australian consumers who banks had previously viewed as too risky to lend to. In March 2003 for instance the Commonwealth Bank of Australia announced that to capture the ten percent of Australian consumers who were self-employed they were launching low-documentation ('low-doc') home loans. Actively citing the declining interest rate and falling prices, they claimed that '…just because you don't have all the right documentation at the right time doesn't mean you can't get into the investment market or buy a larger home for your family.' (Commonwealth Bank 2003)

The impetus to 'buy a larger home' was certainly reflective of the economic reality in the mid-2000s, in which the spread of housing finance and higher levels of lending was bolstered by a continuing set of tax-effective policies for homeowners wanting to sell, including generous capital gains tax concessions. The implementation of negative gearing in the 1980s by the Hawke and Keating governments made property a more attractive investment than it had previously been as a value store. Pouring fuel on the growing fire of rising property prices was the Howard government's decision in late 1999 to boost the existing capital gains tax discount from twenty-five to fifty per cent. This policy decision made wealth generation from real estate assets incredibly attractive to residential property investors. As Phillips and Gray (2019) highlight:

> '…because inflation had fallen so dramatically, the 50% discount went much further. It taxed capital gains, so-called "unearned income", at a much lower rate than income earned in the form of wages and salaries, and also at a lower rate than bank interest and other forms of income.'

The convergence of private innovation in mortgage products and publicly subsidised tax benefits for housing investors, coupled with rising house prices, explains how in 2004 the Reserve Bank of Australia could simultaneously claim housing 'demand by investors has been strong, despite the fact that rental yields have fallen to levels that are very low.' This demand was foundationally based on three decades of public and private incentives that had created a set of idyllic conditions for Australians to buy into the booming housing market that was 'underpinned by investors seeking capital gains, ready access to finance, and a taxation system that makes such investments very attractive' (Reserve Bank of Australia 2004).

The successive deregulatory policies of the Hawke, Keating, and Howard governments had actively developed a class of investors who were hungry to own and hold assets on the future promise of strong capital gains returns (or "unearned income") in a rising housing market. These economic conditions provided a perfect environment for investors to take up IO mortgages *en masse* in a bid to enjoy generous tax concessions, minimal repayment obligations, and optionality to realise asset value gains by selling the property on before the re-assessment period on their IO mortgage was due.

This analysis explains why, as has been noted earlier, though being a catalyst for seismic fractures in the global economic order, the impact of the Global Financial Crisis through 2007-2009 didn't disrupt the appetite of Australian borrowers for housing assets. Across the Australian economy in the mid-2000s 'Australian house prices exhibited their own boom-bust-boom cycle' where 'unlike much of the rest of the world, Australian real mortgage rates increased quickly from their [GFC] floor'. (Mayer & Hubbard 2009) This quick economic rebound following the GFC was due to a number of factors. The peak of Perth's mining boom was occurring, with strong demand from China for iron ore exports helping to soften much of the GFC impact. Though the GFC wiped $27.4 billion off of Australian exports to China in 2009, they were falling from 'their record peak in 2008 of $224.3 billion' of Australia's export industry to China (Priestley 2010).

Another key reason for a softer GFC impact in the Australian economy was due to Australia's financial institutions not engaging with sub-prime housing securities unlike many of their major institutional counterparts in the United States. Because of these factors the Rudd government was able to quickly stabilise the financial sector through a multi-pronged fiscal policy of government guarantees to financial institutions and shoring up liquidity through direct cash handouts to Australians. Ironically, some Australian bankers decided to put a twist on the global economy's 'Minsky moment' by using the financial stability of the Rudd government guarantee on bank bonds worth billions of dollars to invest in some of the most unstable high-risk assets available on global markets, including 'buying debt by companies that had already defaulted on loans the most risky investments in the debt world'. (Patrick 2016)

That such risky investment behaviour could be exhibited by a major financial institution highlights the institutional and consumer confidence that the Rudd government's stimulus quickly injected into the Australian economy during the GFC. Indeed, this buoyant institutional confidence and macroeconomic stability lead even Australian State Government Treasury departments to boldly declare: 'the worst of the global financial crisis is over' (Western Australian Department of Treasury and Finance 2009) a mere year after the collapse of Lehman Brothers in October 2008. The cost of this confidence and the prevention of the Australian economy from going into recession, was the creation of heightened confidence in the stability of the housing market and a rapid and pronounced increase in price-to-income ratios for Australian housing.

As personal income growth for Australian workers in the private and public sector crashed across from an average of over four per cent per annum in 2008 to two per cent per annum in 2010 (Gilfillan 2019) housing prices soared. Median house prices that were pushed up significantly in areas such as Brisbane, Adelaide, and Darwin were overshadowed by asset price rises in Sydney where the media house price almost doubled in the decade from 2008 to 2018, and Melbourne where media house prices rose by almost fifty per cent over the same period. (Lowe 2019) As the demand grew for housing finance, so did the alternative mortgage market with IO mortgage products reaching well over 40% of all Australian mortgage approvals by 2015. (Reserve Bank of Australia 2017)

Heightened activity in the housing market through this period was assisted by increased interest from foreign investors in Australia’s housing market. Specifically, after the GFC. Between 2006-07 to 2009-10, Foreign Investment Review Board data shows that foreign investment approvals for residential housing markets were relatively steady with approvals consistently hovering around 5,000 residential dwellings each year (Lane 2018). However, between 2010-11 and 2016-17 foreign investment residential approvals rose rapidly to a peak of over 40,000 approvals in 2016-17. One RBA paper analysing the trend notes that concentrations of foreign dwelling purchases:

> ‘...appear to be most concentrated in new rather than established dwellings, in higher – rather than lower-priced dwellings, in medium and high density dwellings rather than detached dwellings, and in inner-city areas of Sydney and Melbourne rather than other locations.’ (Gauder, Houssard & Orsmond 2014)

Though housing markets across Australia have seen consistent increases in house prices over the last 20 years particularly, the popularity of inner-city dwelling purchases by foreign investors should be recognised as a critical factor which has driven Sydney and Melbourne house prices to being some of the most unaffordable in the world (Hughes 2020). The strong expansion of foreign investors into the housing market has also created a need for new government regulations. The Victoria Government, for example, was required to introduce a ‘ghost tax’ in response to investors buying dwellings, then leaving them empty, a problem which exacerbated housing affordability by creating more demand in the local housing market (Preiss 2017) Yet, this tax has still seen an ongoing number of vacant residential properties in Melbourne, with one estimate placing the level of vacant homes and underused land in metropolitan Melbourne at 4.1% of total available residential property - equivalent to over 69,000 homes. (Johanson 2020).

The result of this has been consistent year-on-year increases in the level of household debt taken on by Australians (primarily from mortgage debt) and a material year-on-year decline in the percentage of borrowers who own their home outright, without mortgage debt (Standard & Poors 2019) Indeed, much of what can be seen in

Australia’s rising housing market can be viewed as Michel Feher’s (2018) ‘creditworthiness’ concern being acted on by Australian families seeking to taking on as much debt as necessary to enter the mortgage market at a time of rapidly rising house prices. With fear of being priced out altogether a critical motivation to enter the market whenever possible. Given the level of necessary mortgage debt to be taken on to enter this market, it is likely that some Australians would risk taking on an IO mortgage to pass a lower assessment threshold and take on high levels of mortgage debt to access home ownership.

As more Australians have taken on these personal financial risks to enter homeownership, the nexus between stable, rising housing prices and national economic fortunes has become so intertwined that the political class are becoming increasingly sensitive to any policy movements that could affect the housing market. When the Royal Commission into Banking and Financial Services handed down its recommendations for banking reform in 2018, consumer interest in non-bank lenders grew significantly as borrowers anticipated credit restrictions from the major banks in response to the Commission’s findings.

Pepper Money, an Australian non-bank lender and provider of alternative mortgages, registered a rise in its Australian residential mortgage lending from $6.9 million in 2017 to $10.7 million in 2018 after the Royal Commission. Unprecedented growth by its own trends. (Pepper Money 2019) This was driven in part by credit-hungry Australian borrowers eager to secure their spot in a dramatically rising housing market, turning to non-bank lenders offering alternative mortgage products who were less impacted by the Royal Commission’s proposed recommendations directed at banking reform including the BEAR legislation designed to hold Executives responsible for product design and mis-selling.

It was Australia’s major banks who became the most active participants in growing the level on IO mortgage lending in their home lending portfolios. With the opportunity to capitalise on a rapidly rising asset values in the housing market, banks also supported additional product features on interest-only mortgages to entice Australian consumers. ‘Offset accounts’ linked to a mortgage, allowed borrowers to deposit funds into an account that is ‘offset’ daily against the mortgage loan. Thereby, reducing the amount of interest charged on the mortgage loan, by the amount in the offset account.

These offset accounts are frequently deposit (savings or transaction) accounts through which funds are available to the mortgagor on an at-call, no-fee basis. According to APRA, 45 per cent of Australian residential mortgage debt can be attributed to mortgages with an offset account, and 70 per cent can be attributed to mortgages with a redraw facility (APRA as quoted in Price, et al 2019). Such facilities are incredibly powerful as vehicles of wealth creation and generation because they:

> '...provide a tax-effective method of saving...First, the deposit rate that the borrower earns on the balance is equal to the mortgage interest rate. Second, the account generates no tax liability compared to depositing money into a separate savings account where any interest accruing adds to taxable income' (Price, et al 2019).

The tax benefits of these facilities are available to both owner-occupier borrowers and investors. However, these facilities have proven to be incredibly popular with interest-only mortgage borrowers specifically if the testimony of former Westpac CEO Brian Hartzer is correct.

Hartzer is on the public record as noting that not all of Westpac's interest-only mortgagors (which in 2017 made up 50% of their home loan book) paid only the interest on their mortgages, as many had offset accounts (Standing Committee on Economics 2017). Given there is no requirement to pay principle on such interest-only mortgages, and that offset accounts can reduce interest payments significantly such a statement should be of critical concern to both APRA and ASIC. Interest-only borrowers (whether investors or owner-occupiers) could potentially avoid paying the principle on their loans (as interest-only mortgagors) and instead pay heavily reduced interest on their IO mortgage (through an offset account), both the borrower and the bank lending to them would be taking on high levels of credit risk.

Redraw facilities are also product features that are frequently offered to borrowers by financial institutions, these facilities allow borrowers to withdraw principal payments from their mortgage that they've made in advance of a payments schedule. The ability to withdraw equity is another distinct advantage that a borrower has from having a mortgage. As mortgage rates are frequently far lower than rates associated with other lending channels available to a borrower (e.g. personal loans, credit cards, payday loans), it is not only more feasible to manage repayments from withdraw equity it provides a potent weapon in the arsenal of serial investors using IO mortgage products – the process of leveraging equity withdrawals from one property (that is accruing capital gains) to take out a deposit on another property is now a viable financial strategy that is praised in mainstream media publications as a pathway to build wealth for supposedly 'savvy' investors (Carey 2018) who leverage equity to 'buy four or five homes in a two year' period (Carey 2019).

This proliferation of new product features tied to IO mortgages allowed for increasingly risky private investment for both property investors and new homeowners. Failures in implementing the Banking Executive Accountability Regime (or BEAR) legislation or creating any reform of IO products, or even enforcing their own guidance around IO lending caps, meant that Australia's financial regulators allowed the build-up of these risky IO lending practices in Australia's major banks at a time when Australia's economy was carrying some of the highest levels of private household debt in the OECD at 211% of household income (Organisation for Economic Co-Operation and Development 2021).

Australians who took on record levels of mortgage debt financing also took on major financial risks in the belief that Australia's housing values would continue to allow them to build personal wealth through mortgage debt financing. With the high prevalence of IO mortgage products, they were able to do so at the lowest possible cost to them in the short term. Holding housing as an asset with minimal cost now to realise a rise in the assets value later, while utilising offset accounts, redraw facilities and equity withdraws to minimise repayments while putting themselves in a financial position to create new liquidity from equity, on the promise of increasingly strong asset valuations.

Chapter 2, Section 3: Interest-only mortgages as riskier products for Australia’s asset economy

The depth and diversity of product options available to IO mortgage borrowers also allows them new ways to manage the product risks of IO mortgages. As noted earlier these risks require active management to minimise the potential harms they present in an agent’s financial portfolio (Minsky 1975 & 1986, Nielson 2019). These financial risks have become more prevalent in Australia’s economy, precisely because rapidly rising housing prices have required Australians to take on record-high levels of debt to access the housing market. As such, small differences in product rates and features can significantly impact the lifestyle of mortgage borrowers taking on these debts. Research from Demographia reveals that Australia is the only country globally to have five of its local housing markets noted as being ‘severely unaffordable’ for middle incomes, with no analysed markets registering as ‘affordable’, ‘moderately unaffordable’ or ‘seriously unaffordable’ (Cox 2023).

This level of unaffordability in Australia’s housing market places an enormous burden on borrowers to manage and minimise product risks associated with IO mortgage products - which for some borrowers may have been the only avenue to access homeownership. To understand how IO mortgage products have supported this shift in Australia’s economy, it is important to contrast how radically different the initial form of interest-only lending was to their contemporary form as a mortgage debt finance product. This shift has occurred in Australia’s economy when governments focussed on homeownership made these products more attractive through taxation regimes, while simultaneously a low cash rate and a regulatory posture of non-interference on product reform, increased the risk-appetites of borrowers.

Returning to the distinction presented by early forms of interest-only lending in Australia, it is important to note that although the private interest in the case of these early forms of interest-only lending was individual Australians, State Governments and borrowers through these programmes shared the financial risks that these speculative enterprises entailed. If a loan went bad and a borrower could not repay through land production, the State Government who had lent to them to in equal measure the loss to their budgetary position.

Conversely, State Governments and Australians both benefited through productive land development. Productive land development guaranteed an income, land and work for the individual, while the increased productivity would broaden the agricultural sector and increase taxation revenue for State Governments. In short, whether at the individual or institutional level, interest-only lending as it developed in Australia was a means of financing which allowed State and Federal Governments to spread a small supply of capital effectively to utilise Australia's land and labour rich economy to grow industries in the public interest.

The significant use of interest-only lending across institutions such as QANTAS, Australia's postal service and the Snowy Hydro Scheme show how widespread the use of interest-only lending was as a part of public investment. With the post-World War II turn towards an active preferencing of home ownership and the development Australia's mortgage market, the number and type of financial intermediaries grew strongly. By 1975, the incoming Federal Government under then Prime Minister, Malcolm Fraser argued for a policy of implementing interest-only loans for first-home buyers to:

> '...increase the ability of first home-seekers to enter the housing market we propose the introduction of flexible mortgage repayments in the early years...when the "deposit gap" is most difficult to bridge.' (Liberal Party of Australia, 1975, pg. 44)

This rationale stood in stark contrast to earlier Federal Government policy where low-income families were a central consideration of public housing policy after 1945.

With the expansion of the mortgage market and the active policy shift for Australians to own their own home, interest-only lending moved from its origins as a vehicle for public investment for the speculative creation of productive capital, to being considered as a potential way for aspiring homeowners to access the mortgage market in a time of heightened interest rates (sitting at over 9% in 1974). With the expansion of the mortgage market and deregulatory moves like the privatisation of CBA and the entry of foreign banks, Australian consumers gained more mortgage product choices than ever before. Product innovation was supported by taxation concessions, with the Federal Liberal Government cutting the Capital Gains Tax by half in the late 1990s as part of its ambition to create a 'modern, competitive and fair taxation system' (Costello quoted in Eccleston 2007).

One consequence of these policies was dramatic growth in the house prices as property investors (but also owner-occupiers) sought to take advantage of taxation policies that favoured asset accumulation. So much was this the case, that when the Productivity Commission held an inquiry into first home ownership in 2003, the Reserve Bank of Australia's submission noted that since the March quarter of 1996, the median house price in Australia had grown at 12 per cent a year, that the trend of 2001-2003 showed housing growing at a rate of 20 per cent per year, and that the media house price at the time of the submission was 2.3 times that in early 1996 (Reserve Bank of Australia 2003). A stunning of level of growth in house prices in less than a decade.

While the expansion since the 1990s of private credit globally (Soederberg 2014) is a phenomenon visible across advanced economies it was the strength of Australia's housing market – while wages stagnated – that drove more Australians to take to housing as a way to build their wealth. With housing price growth outpacing wage growth, Australians were forced to take on bigger and bigger mortgage debts or find alternative mortgage products that would allow them to access as much credit as possible. Again, it is critical to emphasise that almost no direct reform of mortgage products was undertaken by the regulators through post-2000 other than the entrance of new alternative mortgage into the Australian mortgage market.

Given empirical data on deregulation and mortgage product proliferation across developed economies highlights that such products frequently heighten issues of housing affordability (Scanlon, Lunde & Whitehead 2008), meaningful mortgage product reform was a missed opportunity to protect Australian consumers from signing on to riskier mortgages and slow the affordability crisis in the housing market. Through an absence of reform, mortgage credit has continued to grow while wage-based incomes have stagnated in Australia (Gilfillan 2019) and households are taking record mortgage debt on risky IO mortgages. Data from the Australian Bureau of Statistics (2018) demonstrates that 47% of Australian homeowners in 2015-16 with a mortgage debt were over-indebted, with 407,000 and 419,600 households, in Sydney and Melbourne respectively, over-indebted. Not only does such debt provide a drag on consumer spending (Price, et al. 2019) it jeopardises financial system stability.

Compounding the problem of the economic drag caused by over-indebtedness is considerations around loan serviceability. According to Michele Bullock, a leading Reserve Bank of Australia economist, following the 'structural decline' in interest rates there has been 'eased credit constraints and increased loan serviceability' for households (Bullock 2019). Such a view may suit bankers wanting reassurance about the structural integrity of their loan books but doesn't seem to marry well with flatlined incomes with no wage growth in sight. To believe that loan serviceability is stronger than this we would also to see rising consumer sentiment (as borrowers become confident about retaining work and covering their basic costs) and uplifts in waged incomes.

Yet the exact opposite trend is occurring. The Westpac-Melbourne Institute is a leading index of Australian consumer sentiment and has recently recorded its lowest level of consumer confidence in four years (Evans 2019). Financial journalists have highlighted that crucial 'needs' goods (e.g., secondary education costs, childcare costs) for households have grown at a much faster rate than 'wants' goods, such as cheap electronics (Janda 2019). These movements have consequences as borrowers become increasingly both eager to realise capital gains, or fear missing out on homeownership altogether in a rising housing market.

Increased price pressures on households at a time of increased personal indebtedness and rising house prices provides a rationale for borrowers to be dishonest about their finances when applying for mortgage debt financing. Analysts from the international investment bank UBS estimated in 2017 that these "liar loans" could make up more than $500 billion dollars of Australian mortgages based on inaccurate borrower information (Janda 2017). Despite the implementation of responsible lending laws through Australian banks and the Royal Commission into Banking and Financial Services taking place, a follow up report in 2019 found that only 63% of applicants agreed that their loan applications were 'completely factual and accurate' (Vikovich 2019).

Intriguingly APRA in responding to the report only claimed to be 'not in a position to quantify the specific impacts of...differences' of valuation within the UBS analysis and APRA's analysis. Instead of launching any full repudiation of the analysis, APRA noted in response to questions asked at Senate Economics Committee that its own previous review had noted that though:

> '...ADIs were generally designed effectively...there was scope for strengthening the operating effectiveness at some ADIs (*including, for example, the management of serviceability policy overrides*).' [my emphasis] (Australian Prudential Regulatory Authority 2019a)

Of concern in this response is APRA's lack of interest in any further investigation of a strong claim of widespread financial misrepresentation on borrowers. Beyond this though, the concerns APRA had been centred not on these representations, but whether borrowers could pay their mortgages to the banks. In doing so APRA missed the underlying issue of the 'liar loans' phenomena being indicative of the fear Australians have about missing out in accessing secure housing altogether, particularly for first home buyers (hereafter FHBs).

In a market with rapidly rising house prices, all borrowers have to appear be creditworthy to lenders, whilst trying to fight against increased instability and fragmentation in the labour market – where 'job switching' may be the only recourse to increasing their salary in real terms (Karp 2019). As Michel Feher has noted (2018) given many asset-poor borrowers are increasingly being forced to take our large loans to access housing the appearance of creditworthiness of the borrower to the lender becomes paramount:

> 'The material precarity...forces large swaths of the population to borrow...anyone hoping to obtain a loan must offer guarantees. In the absence of sizeable assets, aspiring borrowers generally rely both on prospective collaterals – such as the market value of the house they wish to buy...and on the reputation for reliability they have acquired by repaying previous loans. Demonstrating their solvency...enables borrowers to sustain their creditworthiness – moral, as much as financial – thereby persuading creditors to keep lending to them.' (2018, pg. 18-19)

In such a precarious world, access to private housing through mortgage products becomes a key means for workers to secure themselves. Furthermore, in financial markets where growth in asset values outstrip growth in income from labour, housing – as a valuable financial asset – becomes a primary good in safeguarding and growing personal wealth.

It should not be surprising that in such an environment, cheap debt has continued to spur on house prices, particularly in Sydney and Melbourne. With these price rises heightened public scrutiny has come to bear on the financial advantages a mortgager can enjoy over those who are not yet mortgagors. Growing academic literature has demonstrated direct links between increased unaffordability as a critical consequence of Australia's current housing and finance regime (Gurran, Gallent & Chiu 2016, Gurran & Phibbs 2016).

While analysis of the product itself remains central to understanding how IO mortgages have developed as a critical pillar of Australia's mortgage market, it is important to note that the legal and taxation regimes around these products can increase or decrease the risks they present to a borrower's portfolio. Even before the GFC, the 'negative gearing' of taxation on rental investments, allowed established property investors to distort market prices and push up prices for new entrants into the housing market (Wyatt, McDonald & Nandha 2005).

The power of 'negative gearing' is that it allows property investors to claim interest on loan repayments, and certain other property investment expenses, as a loss deduction against other personal income. Investors, therefore, have a lucrative option open to them to minimise taxation, increase the value of their assets (e.g., through capital growth on property developments), and claim stronger capital gains should they sell their asset. Or as Australia's Federal Treasury Department has put it more bluntly:

> 'If negative gearing essentially means making a loss, why do it?...While making a loss...might seem counterintuitive, some people are willing to do this in the expectation that the capital gain...when they sell the asset will more than offset that loss' (Australian Treasury, 2015)

The public discourse regarding policies such as 'negative gearing' has become more visible over recent years (Pawson, Milligan & Yates 2020) with figures in the media linking such policies directly to issues of housing affordability. Though successive Federal Government policies have created distinct advantages for Australian investors, this has also been supported through mortgage products with major financial institutions which both allow mortgagors to lower their personal taxation and build their asset base faster. As banks saw opportunities to growth their asset base in extending credit to Australians eager to enter a rising housing market. Many of these products allowed for 'honeymoon' rates which lower the interest rate a mortgagee pays for a short, fixed period of time on taking up the loan. Other products are structured differently and allow for property owners and investors to leverage these products to increase personal wealth.

The mix of unaffordability, increasing price rises and high mortgage debt has been supported by a high penetration of IO mortgages in the Australian mortgage market. In Australia's contemporary economy any direct, meaningful semblance of public interest for why interest-only lending is promoted in Australia's mortgage market has evaporated. In its place is a post-hoc explanation from regulators and economists only centred around the private gains that homeowners (either as investors or owner occupiers) stand to make by taking on the financial risks associated with an IO mortgage, such as the capacity to better manage their cash flow. (Kent 2018) Yet there is a direct link between IO mortgage products, high mortgage debts and rising housing asset values. As modern IO mortgage products have had a high level of penetration in Australia's mortgage market, desperation has grown with clear instances of brokers mis-selling products and borrowers lying to access mortgage products.

The desperation to gain access to housing in a rising market, has been heightened by decades of wage stagnation. So great is the disparity between waged-incomes and housing prices, social theorists have argued that Australia's economy has become an asset economy, where economic opportunity and the capacity to be financially secure are now dependent on whether an agent can access assets (Adkins, Konings & Cooper 2020, Woodman 2020). These events should present clear signals to financial regulators that reform of IO mortgage products which spur the systemic uptake of housing finance risks need to be reformed. Unfortunately, the regulatory moves that have been made by Australia's financial regulators in response to the growth of IO mortgage products, have not exacerbated the systemic financial risks that IO mortgages have posed. Indeed, the depth and nature of the financial risks associated with the growth of IO mortgage products in Australia cannot be understood without an explanation of the institutional role and motivations of Australia's financial regulators in exacerbating these risks.

Australian housing and finance academics (Yates & Berry 2011) had already warned post-GFC, that inaction on addressing underlying mortgage market forces that had driven higher mortgage debt levels being taken on, would lead to increased housing unaffordability if left unaddressed. Since these warnings, further critique has highlighted the results of this inaction. Unaffordability concerns about the capacity for Australians to access homeownership have spilt over into rental markets through heightened prices (Pawson, Milligan & Yates 2020) making it even harder for aspiring Australian homeowners to pull together funds for a mortgage deposit.

Australia's financial regulators have been complicit in allowing these social outcomes to manifest by their failure to reform mortgage products that allowed new homebuyers to take out larger debts on riskier terms. The proliferation of IO mortgage products among those already established in homeownership also supported new investors to leverage their established position (through existing equity) to drive the uptake of mortgage debt across Australia's economy. What is surprising about this development is how visible it was across international economies during the GFC and how Australia's financial regulators comprehensively ignored evidence that showed IO mortgage products played a central role in heightening financial risk during the GFC.

Chapter 3: Australian financial regulators and the creation of ‘systemic’ interest-only mortgage risks

Chapter 3: Section 1: IO mortgage lending in the lead up to the Global Financial Crisis

Regulators across developed housing finance markets struggled to rein in IO mortgage before the onset of the Global Financial Crisis. As such, it is important to understand that precisely because Australia's financial regulators were not in a unique position, they were well placed to observe the impacts of high levels of IO lending in other markets. Whether in the US, UK, or across Europe the impacts of heightened IO mortgage lending exacerbated the financial impacts of the Global Financial Crisis on households and demonstrated the failure of adequate regulatory to curb the excess of IO lending in these markets. IO mortgage product borrowers were for several reasons far more financially fragile than borrowers on 'vanilla' P&I mortgage terms, and therefore far more damaged by plunging asset values that occurred through the Global Financial Crisis.

To understand how IO mortgage products spurred higher risks in developed housing markets, it must be noted that these products encouraged borrowers to take on more debt to capitalise on a global housing market that was booming before the Global Financial Crisis. One study of 13 economies demonstrated that where alternative mortgage products were available borrowers tend to pay more (as IO mortgages take longer to build equity) thereby exposing the housing market to more financial fragility. Internationally, these risks did not stop borrowers from taking on large debts to access a rising property market.

Before the Global Financial Crisis across 2008-2009, the United States experienced a significant build-up of IO mortgages across their housing market. Credit Suisse data from 2007 (as noted in Baily et al., 2011) demonstrated that the share of IO and negative amortization loans used to purchase a home, as a share of total mortgage originations, had jumped from 2%, 1%, 4%, and 6% between 2000 to 2003 to 25%, 29%, and 23% between 2004 to 2006. Spurred on by Alan Greenspan's decision as Chairman of the Federal Reserve to cut interest-rates to their lowest levels since 1958 at 1%, borrowers in America's housing finance market took to IO mortgages to capitalise on a cheap credit spree in a housing market with rising asset values (Isodore 2003).

These were not developments that were localised to the US housing market. Across the Atlantic, one account (Caine 2006) noted that one in four British mortgage holders, just prior to the financial crisis, held an IO mortgage. Alarmingly, the report stated that:

> '…lenders ceased checking that payments were being made into repayment vehicles during the 1990s, they now have no idea if a customer has set up a way to repay the capital sum.'

No less than the UK Financial Services Authority noted that:

> 'An analysis of data on sales of regulated mortgages between April 2005 and December 2005 indicated that an increasing number of mortgages were being completed on an interest-only basis, *with the lender not recording that there was a linked repayment vehicle in place*.' [my emphasis] (ibid)

Whether due to lender malpractice or confidence in rising house values to cover repayments, the negligence of tracking the assessment of the repayment event with a borrower switching from an interest-only period to an interest and accrued principal period on their IO mortgage is a clear indication that underwriting standards had gone awry in the UK banking system when assessing borrowers for alternative mortgages.

The enthusiasm for IO mortgage products had also spread to Europe. One Dutch study highlights (Premius 2009) reveals that prior to the onset of the Global Financial Crisis approximately 50 per cent of mortgages in the Netherlands were taken out on IO terms. The significant rise in the level of IO mortgages across the US, UK and Europe economies was driven in tandem by two major macro-economic forces, one event and one non-event. First, the global event of interest rate cuts across many developed economies opened opportunities for borrowers to take on cheap credit to realise capital gains on housing assets, in markets where values were rising quickly. This movement was spurred on by a corresponding non-event, that of ongoing periods of wage stagnation or low growth that meant many borrowers' incomes were not moving ahead significantly in real terms, making the growth in asset values a more appealing prospect for an associated non-waged income – in the form of a rent or a capital gain.

When the full economic impact of the Global Financial Crisis hit advanced economies, direct scrutiny of the lending practices that had led to the sub-prime housing crisis followed. Alternative mortgages such as so-called 'ninja' loans in the USA (no income, no job or assets), allowed borrowers to gain access to mortgage financing with little capital or assessment from the lender of how they would repay their loan obligations. Despite these examples, little meaningful regulatory reform around mortgage product was proposed.

The lack of inaction in mortgage product reform in the wake of the Global Financial Crisis should have been of the utmost concern to regulators. Atif Mian and Amir Sufi's *House of Debt* (2015) demonstrates that it was the households where mortgage debt and equity made up the largest component of household wealth, that suffered the strongest impacts following the onset of the Global Financial Crisis. This data is bolstered by the empirical link between IO mortgage products, and studies that have revealed that IO mortgage holders have lower levels of financial literacy (Seay, Preece & Le 2017, Gathergood and Weber 2017).

Further, Papadimitriou (2006) rightly notes that IO borrowers who should they experience a sharp increase in repayments, may be required to dramatically cut their spending, or seek relief through a further period of interest-only payments, or – as a last resort - sell their house (Papadimitriou et al., 2006). Minsky's 'survival constraints' on a borrower's portfolio reveal how precarious this combination would have been for IO mortgage product borrowers during a sharp asset value downturn like the Global Financial Crisis. Simply put, IO mortgage product holders were likely to be less financially savvy, more indebted, and have a higher repayment risks when compared to those on non-alternative mortgages.

These effects are more concerning when the impact of mortgages, *as a product*, on the borrower are understood. Amin and Sufi draw a direct comparison between mortgage product risks to homeowners against the positive optionality of insurance:

> '…when it comes to the risk associated with house prices, the financial system's reliance on mortgage debt does the exact opposite of insurance: it concentrates risk on the home owner. While insurance protects the home owner, debt puts the home owner at risk.' (2015, pg. 18)

Detailing the impacts of highly leveraged mortgage debt on US households in a particularly sobering passage, Sufi and Mian show how the crash trapped large swathes of US homeowners in a financial abyss:

> 'In 2011, 11 million properties – 23 percent of all properties with a mortgage – had negative equity. Even though we know these numbers well, we are still shocked as we write them. They are truly stunning and worth repeating: home owners in 1 out of every 4 residential properties with a mortgage in the United States were underwater…Many other home owners walked away, allowing the bank to foreclose. Walking away, of course, was not costless. Failing to pay a mortgage payment shattered one's credit score. Further, foreclosures led to a vicious cycle that further destroyed household net worth.' (2015, pg. 26)

While Mian and Sufi's work focuses primarily on mortgage debt financing overall, the role of alternative mortgages quite clearly exacerbated financial risks and made the social consequences of the housing downturn far worse for borrowers mortgaged on IO products.

Global regulators and policymakers failed to adequately assess, manage and act on the rise of IO mortgage product risks in the lead up to the Global Financial Crisis. They failed to recognise that borrowers of IO mortgage products, were (in Minskyan terms) less financially able to control the risks these products presented in their portfolios. Particularly when compared to borrowers on vanilla P&I mortgages who were as a cohort more financially literate, less indebted on their mortgage, and not facing a future higher repayment schedule. Australian regulators had a unique opportunity to learn these lessons after the Global Financial Crisis.

Australia's economic position after the Global Financial Crisis was unique in that it avoided a full-blown banking crisis and even managed to avoid going into a recession altogether. These economic conditions beg the question of why Australia's financial regulators failed to use this opportunity to curtal IO mortgage product lending? Or even undertake mild reform of IO mortgage products? The answer to these questions requires an investigation into the focus, mission and movements of Australia's financial regulators after the Global Financial Crisis.

Chapter 3, Section 2: How Australian regulators allowed interest-only mortgage risk to flourish post-GFC

Given the Global Financial Crisis' impact had not dramatically impacted the financial position of many Australians, APRA and Australia's other financial regulators forwent focussing on the financial strength of households in responding to the crisis. Instead, they focussed on the stable growth of assets on bank sheets. By forestalling product reform on alternative mortgages and not acting to reign in the increased levels of mortgage debt Australian consumers were taking on, APRA indirectly assisted the creation of wide-spread macroeconomic risks in the housing markets.

As institutional economists note many 'institutions have an innate tendency to drift, being marked by a propensity to diverge from the initial intentions of their original promoters.' (Chavance 2009, pg. 19) The 'drift' evident in APRA's institutional mandate was the confusion of what financial system stabilisation meant for their regulatory authority. Though APRA ensured the financial stability of bank asset sheets, they missed the need to address record levels of mortgage debt being taken on by Australian households as post-GFC bank lending increased. Put simply, the explicit regulatory aim of financial stability across Australia's banks, implied credit and asset growth on the bank's books.

Through the Global Financial Crisis, Australia's financial regulators focussed on bolstering the financial system of Australia's banking system by ensuring credit flows and lending continued between institutions and Australian consumers. It appeared that regulators were not concerned that promoting more credit could bleed into the housing finance market and elevate prices. In 2010 John Laker, the then Chairperson of the Australian Prudential Regulation Authority noted in a speech that the regulator was still addressing risk issues regarding assets that remained on the balance sheets of Australian banks post-GFC. Laker noted that:

> '...over much of the crisis period, APRA's focus on ADI credit quality has not been on housing lending. Australia had its 'wake-up call' in this area a few years earlier and housing lending portfolios have continued to perform well...the focus has been on business lending.' (Laker 2010)

Clearly Laker's view was that APRA's mission statement is to promote 'financial system stability' within the Australian financial services sector (APRA 2023) and the post-GFC view of the economy was that risks in mortgage lending portfolio had been stabilised. Instead, APRA's post-GFC regulatory concern was targeting immediate issues surrounding a collapse in business lending immediately after the GFC.

APRA's lack of mortgage product or lending standards reform was reinforced by a view that heightened mortgage lending evident would not reoccur. APRA's public position following the Global Financial Crisis was that 'the 'salad days' of high-volume mortgage lending growth in the early and mid-2000s '...have gone, and it is critical that the institutional lessons of the global financial crisis are not forgotten.' (Laker 2010) Noting returning levels of consumer confidence from Australian consumers at the time, Laker called for Australian banks to not take their 'eyes off the ball' on credit standards and risk management generally' but to focus on a confident economic outlook that 'will reward those banking institutions with measured strategic ambitions'. Of course, the 'salad days' of high growth did continue and Australian ADIs continued to lend to an already highly leveraged economy driving house prices up, particularly in Sydney and Melbourne, whilst driving borrowers into increased levels of mortgage debt and creating new avenues for financial instability. Within two years of Laker's speech IO mortgages, which had dipped below 30% of total mortgage originations in Australia, rebounded back to a third of all mortgage originations by 2011-12 and reached a high point of 45.6% by 2015 (Atelier Wealth 2022).

Between the GFC and the height of IO mortgage product lending in 2015, Australia's financial regulators had access to clear evidence that there was widespread mis-selling of IO products, dubious mortgage assessments being made, and even clear non-compliance. We have noted the international experience before the Global Financial Crisis earlier. Even so, it is noteworthy that reports from Australia's financial regulators' own investigations and public findings had demonstrated this was the case. Between the time of Laker's speech in 2010 to the announcement of the Royal Commission in 2017, refunds worth millions of dollars from major banking institutions, multiple large-scale compliance failures (Karp 2016), cartel-like mortgage market moves (Australian Competition and Consumer Commission 2018), and accusations of bank bill swap rate manipulation (Schmulow 2016) demonstrated that operational compliance was not a priority for major Australian banks.

Beyond these operational matters, extensive regulatory reviews of lending data across the banking sector had demonstrated conclusively that some third-party channels into the banking sector were unjustifiably promoting IO mortgage products to Australian borrowers. These reviews by the Australian Securities and Investments Commission (ASIC) revealed concerning practices within ADIs and their partners in third-party channels. An ASIC analysis of 11 large mortgage brokers, found that in the June 2015 quarter new interest-only home loan applications accounted for 43% of flows from brokers. Despite falling to 36% in the December 2015 quarter and again in March 2016, the June 2016 quarter saw interest-only home loan applications rise 'close to that seen at the end of 2015' (Australian Securities and Investments Commission 2016). Given that ASIC reviews had already found that from the existing IO mortgages that had been approved from third-party channels, 30% demonstrated no clear link between the borrower's interests and the IO mortgage product, the case from product reform was clear.

For Australia's financial regulators, following the immediate impacts of the Global Financial Crisis and through the COVID-19 pandemic, the focus of regulatory efforts has continued to be on financial stability. This has been primarily spent addressing lending practices and compliance issues. The Royal Commission into Banking & Financial Services that started in 2017 and finished in 2019, revealed large levels of regulatory reporting failure from Australia's largest banks in notifying the regulators of instances of non-compliance, in some cases this included active misleading of Australia's financial regulators. When recommendations of the inquiry were finalised, most of the Royal Commission's 76 recommendations focussed overwhelmingly on legislation to create new obligations on financial lenders and intermediaries regarding fee-for-service arrangements, trustee obligations, and new disclosures (Commonwealth Government of Australia 2019).

Only one recommendation explicitly covered product reform as part of increased banking regulation specifically. Recommendation 1.17 encouraged for product responsibility to be added into the financial regulator's existing Banking Executive Accountability Regime (or BEAR). Specifically, that:

> 'After appropriate consultation, APRA should determine for the purposes of section 37BA(2)(b) of the Banking Act, a responsibility, within each ADI subject to the BEAR, for all steps in the design, delivery and maintenance of all products offered to customers by the ADI and any necessary remediation of customers in respect of any of those products.'

This recommendation would have expanded the existing BEAR, a piece of legislation introduced in 2017 through the Federal Treasury to increase (civil) liabilities, potential disqualifications, and loss of remuneration outcomes for banks and bank Executives as part of the 'Government's attempt to improve the operating culture of ADIs and to increase transparency and accountability in the banking sector' (Ashurst, 2017).

This new legislation was to cover all APRA-regulated entities increasing levels of accountability for Executive-level responsible persons, with increased punitive civil and financial penalties for non-compliance. However, this expanded legislation (known as the Financial Accountability Regime Bill, or FAR) would not create a platform for sufficient critical review of existing products inside the banking sector in the years following the Royal Commission. First, the Federal Government's slow response to the recommendations of Royal Commission into Banking and Financial Services generally meant that the legislation itself was introduced into Parliament only in late October of 2021 and allowed to lapse at the closing of Parliament in April 2022 (Australian Parliament House, 2022) before the May 2022 Federal Election. This ensured the FAR's implementation would have to be actively re-introduced to Parliament, post-election stalling progress and reform - A barely amended FAR 2022 Bill was introduced into Australia's Parliament again in September 2022.

Second, the FAR itself did not actively mandate accountabilities and embed regulation of financial products in the way the Royal Commission recommended in Recommendation 1.17, that is, around the 'design, delivery and maintenance of all products offered to customers by the ADI.' Even the major legal firm, Minter Ellison's initial advice on the amended FAR Bill of 2022 viewed the expanded legislation as primarily acting on recommendations of the Royal Commission (Minter Ellison, 2022) which focussed far more on extending APRA's regulatory power and its role as a co-regulator of the BEAR with ASIC. As such, none of the amended regulatory powers of the FAR have sufficiently enshrined any new responsibilities for lending financial products across ADIs, or their Executives, in the way the Royal Commission recommended.

Delays from these product reforms are a failure of commission. Though Australia's financial regulators have also had failures of omission on product reform. Indeed, Australia's financial regulators already had legislative support to seriously question why lenders were allowing these practices to take place. In 2009 the then Federal Government under Prime Minister Kevin Rudd introduced post-GFC financial reforms to impose requirements for Australian lenders to scrutinise the finances of those applying for credit, rather than rely on borrowers to provide accurate information. As the Senate Economics Legislation Committee notes (2020) these changes:

> '...require licensees to assess that a credit contract, or lease, is not unsuitable for the consumer's requirements and objectives, and that the consumer has the capacity to meet the financial obligations under the credit contract or lease. In doing so, reasonable inquiries must be made about the consumer's requirements, objectives, and financial situation, and reasonable steps taken to verify the consumer's financial situation. This approach aims to ensure that licensees do not provide, suggest, or assist with credit contracts or leases that are unsuitable for the consumer.'

At the very least, the fact that these financial reforms were implemented would have given APRA and ASIC clear cause to review further why IO mortgage products – again, by their own reports - were being sold to the interest of Australian consumers without clear consideration of whether these products were in their best interests.

Arguably, a stronger financial regulator would have pushed for a deeper investigation of whether the actions of the lenders who had been subject to the review were in breach of these financial laws and whether it was more widespread practice than beyond the lenders it reviewed. Not only did this not happen but these reviews did nothing to trigger any follow up investigation as to whether IO mortgage products were fit for purpose in light of Australia's rising housing market, increased debt levels, and their widespread adoption. Again, on this score, Australia’s financial regulators cannot plead ignorant.

Through several systematic reviews of Australia’s financial position over the 2000s and 2010s the Reserve Bank of Australia had already revealed the astronomic growth of IO mortgage products in Australia’s economy, by 2017 the Reserve Bank of Australia had noted the extent of the risk exposure of IO mortgages across the Australian housing market, noting that interest-only products accounted for one in every four Owner-Occupier mortgages (23%) and two-thirds of the Investor mortgage market (64%). (RBA 2017) Noting the inherent ‘systematic risks’ that this extensive interest-only lending represented in Australia’s financial markets, the RBA noted concerns that interest-only borrowers could certainly utilise their:

> ‘higher level of leverage...thereby magnifying their returns from rising housing prices but also magnifying any losses’ which ‘at an aggregate level...could induce a more pronounced cycle in housing prices than would otherwise occur, amplifying the size of any subsequent downswing in housing prices’.

Given the pronounced level of Australia’s record private debt, spurred on by cheap cash, it should not be surprising that a major credit agency in 2018 as the housing boom tapered off, that ’declining house prices, high levels of debt, and the conversion of interest-only to principal and interest loans’ were key contributing factors to a rise in 30-day plus delinquencies in residential mortgage-backed securities.

Even as late as 2021, regulators denied these signs that a toxic combination of IO mortgage products and high mortgage debt financing was contributing to greater financial risk and delinquencies. APRA Chair Wayne Byrnes publicly stated that APRA were not concerned that ‘household debt levels are undeniably high’ and that there ‘are signs that housing credit growth is picking up, and likely to outpace income growth’ as ‘serviceability of that debt is also being supported by historically low interest rates’ (Byres 2021) The serviceability narrative has also been utilised by other regulators to allay fears that borrowers are taking out levels of debt financing they cannot afford. (Reserve Bank of Australia 2018)

This however disregards the deposit gap that potential mortgagors entering the mortgage market have to face. In Australia this is a 20% deposit on the house price to avoid extra costs, like lenders mortgage insurance. In a market where house prices are rising rapidly and traditional sources of income, like the waged income, are stagnating and access to housing requires even greater sums of income to source a deposit. As such, Koppe (2017) notes the level and timing of inheritance between families is now increasingly a critical factor in determining housing outcomes, such as those between a lifelong renter and the opportunity to move towards homeownership.

This pattern of failure from Australia's financial regulators to institute new, or enforce existing, legislation or guidance to reign in record levels of mortgage debt was in itself an outcome of their regulatory stance. By spurring credit flows after the Global Financial Crisis, not enforcing or implementing new reform, and ignoring reports of risky activities in housing finance markets, Australia's financial regulators helped created financial stability for banks, while allowing financial risks to grow for mortgaged households. The growth in mortgage debt and IO mortgage product levels occurred against a background of rising profits and investor funding which was utilised to increase more levels of residential mortgage lending across Australia's banking system. Rapid equity raisings from major bank share issuances directly after the GFC period meant 'solid profits throughout the turmoil, the Australian banking sector was able to generate Tier 1 capital organically, through increases in retained earnings' (Gorajek & Turner 2010).

A closer look at APRA's data throughout this period of mortgage lending demonstrates two important caveats as regards the increased reach of mortgage lending following this capitalisation. First, compared to building societies, credit unions, and mutual banks, the major banks extended interest-only mortgage lending to a far larger percentage of their home loan portfolios (Australian Prudential Regulatory Authority 2019b). Second, whilst being well capitalised the major banks held far less capital on a percentile basis than their counterparts in the community banking sector increasing the riskiness of their operations. Given the overwhelmingly oligarchical nature of the major banks, APRA's celebration of the rapid expansion of credit to Australian borrowers of these major banks appears naïve and unsound at best, and at worst has increased the financial instability of Australia's economy.

By focussing on the financial stability of the Australian banking system instead of the finances of Australian households, Australia's financial regulators supported the conditions for financial instability across Australia households. This explains why financial regulators could support the proliferation of risky IO mortgage products to grow banking balance sheets and fail to reform IO mortgage products, even as their reports showed dangerous, rapid rises in the level of mortgage debt - particularly as associated with IO mortgage products. It also helps confusing public statements from APRA on their role as a critical pillar in promoting Australia's 'financial stability' across Australia's banking sector (Australian Prudential Regulatory Authority 2019a) even as it denounces these same financial institutions for '...outsourcing critical functions and activities to external parties that...potentially exist outside of the regulatory perimeter' and a fear of 'declining house prices and subdued wage growth [that] present some systematic risk' (Byres quoted in Frost 2019)

Chapter 3, Section 3: Minute reform, major financial risks: How regulation concentrated IO mortgage risks inside Australia's major banks

While direct product reform was not taken by Australia's financial regulators following the Global Financial Crisis, the level of investor and IO mortgage debt financing spurred by the combination of rising prices, foreign investors, local investors and those seeking to enter the housing market for the first time forced the regulators to act to cool the market. With 1 in 4 owner-occupiers and (more concerningly) 3 out of 5 investors relying on IO mortgage products as part of their housing finance and Sydney's housing market reaching a new price peak, in March 2017 the Australian Prudential Regulation Authority introduced a nationwide cap on new interest-only lending for Authorised Deposit-taking Institutions (ADIs) to 30 per cent of new residential mortgage lending. The cap was introduced to combat growth in interest-only lending during an ongoing 'environment of heightened risk...one of high housing prices, high and rising household indebtedness, subdued household income growth, historically low interest rates and strong competitive pressures' (Australian Prudential Regulatory Authority 2017).

In announcing the introduction of the interest-only cap, APRA Chairman Wayne Byres, was clear that further regulatory enforcement could be brought to bear should Australian banks not comply with the cap:

> 'APRA views a higher proportion of interest-only lending in the current environment to be indicative of a higher risk profile. We…will consider the need to impose additional requirements on an ADI when the proportion of new lending on interest-only terms exceeds 30 per cent of total new mortgage lending' (Byrnes quoted in Australian Prudential Regulatory Authority 2017)

Leaving this large level of IO mortgage debt financing unchecked until APRA introduced the interest-only cap in 2017 at the peak of the housing market, demonstrates how dangerous the level of IO mortgage lending was by this point. Reinforcing this is ASIC's 2015 review which revealed that 'in just over 20% of instances there was no statement summarising how the interest-only feature specifically met the consumer's requirements and objectives. A slight improvement from ASIC's previous report on interest-only lending in third-party channels which revealed that 30% of loans 'had no evidence' that the lender had considered whether the interest-only mortgage met the consumer's need (Australian Securities and Investments Commission 2015).

Despite the higher levels of risk to lenders, borrowers and the economy more broadly that interest-only mortgage represent, Australian ADIs didn't stop aggressively pursuing borrowers to get involved with interest-only lending. They did so even despite APRA's 30 per cent interest-only lending cap in March 2017. The most pertinent example of this is undoubtedly Westpac, one of Australia's largest banks, and arguably the keenest to encourage take of IO mortgage products to Australia borrowers flagrantly disregarding the IO regulatory cap.

In October 2017 before the Australian Senate's Standing Committee on Economics, Westpac CEO Brian Hartzer shared that the Bank's residential interest-only home lending accounted for 50 per cent of its total home lending book. In line with the ACCC's analysis that the four major banks represent 80% of market share, this could have equated to approximately 15% of mortgages in Australia are interest-only Westpac loans. Despite its exposure to massive interest-only risks, APRA's cap on interest-only lending didn't tempt Westpac to start rapidly reducing its level of support to interest-only borrowers at the height of the 2017 property market peak. On the contrary, instead of immediately introducing compliance measures to limit new interest-only loans to 30 out of every 100 new loans that came through the bank, Westpac increased loan rates on new *and current* interest-only mortgage borrowers. Brian Hartzer argued that this price mechanism, on all of the bank's interest-only mortgages borrowers, was a more effective way of meeting APRA's 30 per cent cap than an outright cap across the bank's lending. Asked by the Senate Committee whether Westpac's pricing decision had considered the increased profit impact for the bank, Hartzer failed to give a definitive answer: 'Potentially, no.' (Standing Committee on Economics 2017)

Such a response implies a desire from Westpac to sow doubt that profit could be a prime motive for raising rates on IO borrowers to meet the prudential cost of a slowdown of flows on new interest-only lending. What is unquestionable though is that the pricing move was incredibly profitable for Westpac (along with ANZ, CBA, and NAB). The Australian Competition and Consumer Commission demonstrated that the rate move resulted in $1.1 billion of profit flowing to these banks, no doubt a more than desirable result for the major banks in a year where approximately 40 per cent of all new Australian housing loans were IO mortgages. The ACCC stated that major banks took an 'accommodative and synchronised approach to pricing...' and that such 'behaviour was not unexpected and is enabled by the oligopoly market structure in which the big four banks collectively have about an 80 per cent share'. (Australian Competition and Consumer Commission 2018)

While Brian Hartzer insisted at his 2017 Senate Committee hearing that the truth of the pricing moves to meet APRA's 30 per cent cap was made 'explicitly' in Westpac's press release announcing the change, the ACCC found that Westpac's (and CBA and NAB's) media statements '...didn't disclose the full story'. The lack of clarity was evident in the fact that 'While the big four banks may have had a desire to encourage existing interest-only borrowers to switch to principal and interest repayments, those actions would not help them meet the interest-only benchmark.' (ibid 2018) This assessment would come too late for those who IO mortgage product holders who had already been locked into paying the major banks an extra $1 billion according to the ACCC's report.

The manipulation of the pricing power by the major banks for IO mortgage products points to a deeper problem that was actively created and shaped by APRA's regulatory efforts in introducing the IO mortgage lending cap. That is, the reshaping of the mortgage market in Australia to favour Australia's major banks as the primary lenders for IO mortgage products. This occurred because APRA's IO regulatory cap was proportional to the level of the home lending portfolio of each Australian bank. It meant that banks with an existing home lending asset portfolio of $10 billion could write up to $3 billion in new IO mortgages, but a major bank like the Commonwealth Bank of Australia with over $579b in mortgage assets on its home loan portfolio in 2021 (Commonwealth Bank of Australia 2021) would be in a position to write over $179 billion in new IO mortgages.

The result of this blanket regulation applying to all Australian banks allowed the concentration of financial risks associated with IO mortgage products inside Australia’s biggest banks. Put simply, bigger banks could write bigger levels of IO mortgages. This was the same type of cap APRA had previously put in place for investor lending in 2014. A cap which had the same proportionality problems and market warping outcomes. The combined impact of the IO mortgage product cap and the investor lending cap had another negative effect, as both moves allowed what meagre competitiveness was in Australia’s housing finance market to be significantly undermined. With 80% of the mortgage market already dominated by Australia’s top four major banks this move should have been, and still should be, thoroughly concerning for advocates of strong market competition in Australia’s financial services.

Given the promotion of market competition is a central feature of a market where consumers can measure lenders against each other and ultimately access better priced and better tailored products, APRA’s IO regulatory cap successfully unwound the competitiveness of the mortgage market just as Australian consumers needed it most – with record mortgage debt levels, stagnate wages, and high house prices. APRA’s failure to have had the foresight to understand the anti-competitive and risk creating effects of its own regulation is startingly and concerning. It is possible that this may be a simple lack of meaningful higher order thinking on the part of the regulator. A more cynical view whispered inside Australia’s banking sector (which the author can attest too as an ex-bank employee) is that Australia’s financial regulators prefer working with a smaller and larger set of banks to enforce and maintain regulation in the name of ‘financial stability’, instead of a more competitive financial services sector which requires more time and resources to monitor and regulate.

Advocates for a competitive mortgage market have highlighted how Australia’s financial regulators have helped support the concentration of housing assets in Australia's major banks, allowing the continuation of oligopolist activity within Australia’s major banks – on pricing and product features. Again, regulatory moves have been visible that instead of halting this movement of concentrated financial risk, have actively supported continued consolidation of smaller banks that are the competition of the major banks for share of Australia’s mortgage market. Leigh & Triggs (2016) estimate that Australia's major banks control 94% of the commercial banking market in contrast to the United States whose four major commercial banks control 26% of the market. In a background paper, the Royal Commission into Banking and Financial Services noted that between 2007 and 2017 the number of ADIs operating in Australia had dropped by a third (Royal Commission into Banking and Financial Services 2018).

Since the onset of the COVID-19 this market consolidation has been driven by the RBA’s term funding facility which shifted billions of dollars from the central bank to Australian banks, but primarily to Australia’s major banks. The RBA’s decision to provide a $90 billion term funding facility to Australian ADIs in March 2020 supposedly to offset the worst economic impacts of COVID-19 demonstrates the same flawed public policy thinking that APRA has shown through its regulatory moves on interest-only lending. Namely, a lack of foresight to create competitive policy that would decentralise financial risk across the Australian financial system. The RBA announced this term funding facility would provide an ‘incentive for lenders to support credit to businesses' declaring it a ‘priority area’, despite the facility being accessible for all ADIs with the capacity to:

> ‘...be able to borrow from the Reserve Bank an amount equivalent to 3 per cent of their existing outstanding credit to Australian businesses *and households*...funding from the Reserve Bank will be for three years at fixed interest rate of 0.25 per cent, *which is substantially below lenders’ current funding costs.*’ [my emphasis] (Lowe, 2020)

The RBA’s drastic intervention has yet to have visibly increased the level of business credit available through the banking system.

What has been clearer is that ADIs, particularly Australia’s major banks, have used this funding to launch mortgage re-financing campaigns, attracting borrowers with cashback incentives and lower mortgage rates. Spurred on by this virtually free cash injection, major banks brought on $9 billion in additional gross loans to households, while term loans declined by over $100 billion. This shoring up of household financing by major bank lenders has allowed them to continue their dominance over other smaller, domestic banks. As at September 2020 APRA data shows that major banks account for almost 7 times the value of assets held by other Australia ADIs (Australian Prudential Regulatory Authority 2020). This has in turn resulted in record levels of new home lending activity by Australian banks (Santhebennur 2021) with record approval times from 'major lenders boasting of turnaround times of two days or less for simple mortgages.' (Frost & Eyers 2021)

Concerns now abound for the long-term viability of competition in the Australian banking sector due to the RBA's term funding facilities. With no substantial banking reform from the Federal Government in the interim, the one-size-fits all term funding facilities from the RBA allowed major banks to crowd out competition in an already dominated sector. Kim Cannon, managing director of Australian non-bank lender Firstmac noted that the RBA's cheap money policies would severely hamper market competition and further consolidate the significant home lending portfolios of the major banks:

> 'By giving super-cheap public funding to the big banks and excluding other lenders, the federal government is consolidating market share into the hands of big banks. This is a red alert for the government to reform this program urgently before it does irreversible damage to the lending market and the long-term interests of Australian borrowers...' (quoted in Frost 2020)

These concerns about market consolidation did not halt the Reserve Bank of Australia's continued intervention in financial markets. In November 2020, while announcing the RBA would buyback $100 billion in government bonds, the RBA openly stated such decisions could have an 'impact on savers' and that it:

> '...recognises that low rates can encourage some additional risk-taking, as investors search for yield. [And] that low deposit rates can create difficulties for some people.'

The reduction in interest rates certainly flowed through to depositors and is impacting their financial wellbeing. Given the pandemic drove Australians to a saving ratio of 19% in June 2020, there will be almost no interest garnered for those holding an increased amount of capital. With house prices now growing at a faster pace than incomes (Porter, Bowman and Curry 2020) the RBA's term funding facility, poor regulatory enforcement from APRA, and continued market consolidation has left prospective home buyers will be forced to seek yield in riskier investments with their capital, if they hope to meet the 'deposit gap' to secure financing for a dwelling. Indeed, in 2021 popular investment media outlets actively championed shifting low return investments like cash, affected by 'loose monetary policy' to cheap, to high-dividend shares where investors could crowd-in and create capital gains for shareholders (Stephens 2021).

The consolidation of Australia's banking sector, caused by this evident poor financial regulation, will assist major banks ultimately by shrinking the level of competition and the number of competitors for housing finance. At a deeper level these financial institutions – some of Australia's biggest exchange-listed companies – will have high levels of control not only over their own continued capacities to innovate and introduce riskier mortgage products and hold larger levels of industry power in shifting regulatory expectations as they grow in size and complexity. As this occurs, the capacity of the Australia's major banks to shift markets, regulatory responses, and public perceptions will continue to have deleterious impacts on both borrowers and those seeking to get into the housing markets. Simultaneously, major banks will have the market power to increasingly disregard the guidance of financial regulators like the RBA and APRA, even as the decisions these regulators have made have put banks in the public advocacy position to do so.

To take one recent example, the prime lobbying body of Australia's major banks, the Australian Banking Association (ABA) during the COVID-19 crisis claimed that regulatory capital requirements are to blame for increased interest repayments that occurred after they were initially paused by many Australian banks during the start of the COVID-19 crisis. These Tier 1 capital requirements are a central part of ensuring banks have appropriate financial reserves to ensure good financial governance. Yet by shifting the public discourse about the actions of major banks to shift about withholding support not because they were choosing but because they were constrained by alleged regulatory costs of capital requirements.

The ABA – of which the major banks frequently share key leadership positions of – outlined early in March 2020 that their associated ADIs would allow for deferred payments on mortgages (Australian Banking Association 2020). As part of this Australia's major banks committed to six-month home loan payment deferrals. However, these mortgages continued to accrue interest for the borrowers. With many of these mortgage payment deferrals came to end many Australian banks – but particularly the major banks who manage 80% of the mortgage market – began pressing on customers to make urgent repayments on their mortgages, with some even receiving demands to pay back $20,000 in payments in arrears (Clayton 2021).

The consumer messaging from the ABA on why borrowers were required to payback these arrears claimed that regulation, not the profit motive, was the prime reason Australian homeowners needed to pay these accrued interest payments back to the bank. As such, the ABA claimed that that real reason homeowners need to pay back these payments was that:

> 'For every dollar that an Australian bank lends, regulation requires them to hold a certain amount of capital. If banks don't charge interest, even if the loan is deferred, the loan must then be treated as 'impaired' under accounting and banking rules. The bank is then required to hold more capital to support that 'impaired' loan. If banks stopped charging interest [on COVID impacted mortgages] they would not have enough capital to provide new loans.' (Australian Banking Association 2021)

This is a noteworthy statement for several reasons. First, it says nothing about any possible community obligations on banks to assist consumers with interest payments. Trimming shareholder dividends, utilising retained earnings, or cutting internal costs are all viable means to offset any costs associated with easing repayment burdens on borrowers – but they present a direct cost the bank, not the borrower. That the costs of repayment are falling on borrowers makes a mockery of supposed programs in Australia's major banks to focus on 'shared value' by creating products that generate social value (Gray 2017).

Given that Australia's major banks had already demonstrated contempt for Australian financial regulators in ignoring regulatory guidance on IO mortgage product lending levels or - as the Australian Competition and Consumer Commission found (2018) -

moving in tandem to raise IO mortgage rates without any justifiable business reason beyond profit, the validity of the ABA's claim remains very questionable. What is less questionable is that the clawback of accrued interest on borrower's mortgages was assisted by a very uncompetitive mortgage market were borrowers had little choice outside of the major banks to re-finance or seek other mortgage options. Such were the real consequences of the continued deterioration of market competition, assisted by the actions of Australia's financial regulators.

One final issue regarding the ABA's move to blame regulatory capital requirements for supposedly impeding the level of support Australia's major banks were able to give their customers during the COVID-19 crisis should be mentioned. That issue is the issue of 'moral hazard'. Moral hazard in financial markets occurs when losses are insured for a particular party, which encourages risk-taking behaviour from as they know losses will be covered by another party. A small example was noted earlier, that of investment teams at Macquarie Bank utilising the Federal Government's guarantee of assets to buy up high-risk to junk level assets during the GFC, knowing that any profits would be theirs while losses would be covered by the Federal Government.

A bigger example is the denoting of Australia's major banks as 'systematically important' under the Basel committee framework, in essence making them 'too big to fail' and creating lower funding costs for major banks in wholesale markets. (Reserve Bank of Australia 2012). In a one information paper, the Australian Prudential Regulatory Authority (2013) claims that the increased capital requirements on the 'systematically important' major banks will:

> '...reduce the probability of failure compared to non-systematic institutions, as well as avoid the possibility that any direct costs of support may be borne by taxpayers.' (pg. 19)

Furthermore, the Tier 1 capital requirements are:

> '...intended to reduce the moral hazard and potential costs to taxpayers associated with perceptions of government support.' (pg. 18)

In essence, the specific noting of capital requirements by the ABA is a positioning move, with both regulators and political interests, to build a public platform to call for the removal of these requirements to 'free up' this capital to (supposedly) assist mortgagors in potential financial distress. Instead, the freeing up of this capital will merely create a new source of liquidity to be utilised by banks across their portfolios.

Without any legal guarantee that the lessening of these requirements would see this capital directly redeployed to assist mortgagors, major banks will likely use it to further their moves to extend their lending to new mortgagors as they have done throughout COVID-19. The major banks, given they are covered by the implicit government guarantee to be bailed out as a 'systematically important' financial institution under the Basel II agreement (Australian Prudential Regulatory Authority 2013), have a significant incentive to engage in riskier forms of lending than smaller competitors in the Australian lending landscape.

This position of 'systematically important' under the Basel II agreement has only been granted to Australia's major banks, a high designation but also one that enables them to take on risks other Australian banks cannot. The regulatory framework of Basel II has therefore shaped a theoretical justification, and arguably from their actions in practice, for Australia's major banks to take on highly risky levels of underwriting IO mortgage products across their home lending portfolios in the clear and open knowledge that (if the unlikely event occurred) a major bank went under they would be covered by the taxpayer.

Put more sharply, one could argue that this moral hazard means the worst thing that could happen to a major bank is to lose a risky home loan in a rising market to another bank, the second worst thing would be the bank going under. Commenting on the threat that the moral hazard associated with 'bailouts' posed in the US banking system, Nassim Nicholas Taleb summed up the problem as follows:

> 'The core of the problem is that asymmetry in payoff socialising losses and privatising gain…The fact that [the US Government] bailed out the banks…in '87 again and they kept repeating it, gave banks the feeling that they could hijack society…In 2008 when they bailed out the banks once again, they should have set the ground to remove that problem.' (Taleb quoted in Badkar 2011)

If the regulatory endeavours of Australia's financial regulators to date are any indication there seems to be little hope for serious mortgage product, market or system reform that would address this issue of moral hazard inside Australia's biggest lenders.

At each point through the post-Global Financial Crisis, Australia's financial regulators have failed to act significantly to either effectively enforce existing financial laws when malpractice concerning mortgage product mis-selling was evident, or effectively forestall the rapid house price rises or record levels of mortgage debt being taken on by Australians. When they did act, there actions did not curtail on-selling of risky IO mortgage products they simply redirected the lending flows into Australia's biggest banks. In doing so they concentrated IO mortgage related financial risks inside these 'systematically important' Basel II financial institutions. APRA's removal of the interest-only cap in 2018, along with the removal of a 10 per cent cap on future investor lending played a role in shoring up the flows of housing finance for Australia's major banks and supported urgent pleas from the Federal Treasurer for banks to keep lending housing credit for (what he deemed to be) 'the broader public good' (Coorey 2018).

Some major banks responded to these moves by increasing credit risks within their interest-only books by offering up to 10-years interest-only terms to investors with weighted loan-to-value (LVR) ratios of up to 90 percent (Kadib 2019) a sure sign that these banks were concerned neither with the financial risks associated with large scale IO mortgage lending, or any potential queries from APRA regarding the promotion of housing credit risk within their Basel II-listed institutions. If this was the internal view inside Australia's major banks it was well justified. Australia's financial regulators by their regulatory acts of commission and omission clearly showed they did not take great interest in the quality, features, or debt levels of a given mortgage being taken on by Australia's consumers in a white-hot housing market.

The prime consideration for these financial regulators was that Australian homeowners were in a financial position to repay their lender. It is evident in the RBA's insistence on loan serviceability as the prime criteria for judging the financial stability of a household's capacity to repay their mortgage. It is evident in the lack of product reform undertaken by APRA. It is evident in the numerous reports internal and external reports that demonstrated a link between risky lending practices, high mortgage debt, housing unaffordability, and IO mortgage products. It is finally evident in the lack of concern of moral hazard that is arguably present in Australia's major banks. Far from promoting 'financial stability' in a time of rising mortgage arrears, Australia's financial regulators created the conditions for financial instability to blossom both across highly indebted households and inside Australia's major banks. A key aspect of which was the promotion and regulatory inaction on IO mortgage products and IO mortgage lending.

It is worth noting the global context of this moves in the place of the historic levels of global mortgage debt growth. Recently released long-run data demonstrates that globally mortgage debt on banks' balance sheets have doubled in the twentieth century. (Jorda et al. 2016) This has contributed to the developed world's housing crisis which in turn has created worse recessions than typical business cycles. As expansionary monetary policy heightens these risks to financial stability (Claeys and Darvas 2015) Australian financial regulators continued to focus on 'financial stability' of institutions rather than the financial health of households. As such, regulators are led into paradoxical moves. They support financial stability by ensuring banks' commercial lending post-GFC, while ignoring risks from rising home lending portfolios. They postpone macro-prudential reform and banking supervision in the name of financial stability, while banks speed up their mortgage underwriting at record levels. These short-sighted regulatory positions have allowed Australia's major banks to secure an oligopolistic position where, as too-big-to-fail 'systematically important' Basel II banks Australia's major banks now represent 80% of Australian ADIs' financial footprint.

The operational logic of financial stability that Australia's financial regulators act on has favoured the very largest financial institutions. Though it may be easy to paint a slightly conspiratorial picture of 'policy capture' of Australia's financial regulators being beholden to large, private interests the reality is more banal. For Australia's financial regulators, financial stability is simply synonymous with ensuring the financial health of Australia's largest financial institutions. This is most evident in regulatory reform that applies lending barriers (such as APRA's 10% investor lending cap or the 30% interest-only mortgage cap) or allows equal access to emergency funding (such as the RBA's Term Funding Facility) without reference to proportional caps which would achieve a 'secondary' goal of market competition and long-term consumer benefit. Through such moves Australia's financial regulators have contributed to a financial system where 70 smaller ADIs including foreign banks, building societies, and community banks, have all exited Australia's financial landscape in ten years (Royal Commission into Banking and Financial Services 2018) The lack of regulatory concern beyond financial stability in Australia's major banks has not only weakened market competition it has increased systematic financial fragility.

Ironically, this operational logic has led IO mortgage products to be supported by Australia's financial regulators as promoting financial stability by allowing consumers to smooth consumption or access housing finance precisely *because* they have allowed mortgage debt levels to balloon as waged incomes stagnated and housing unaffordability rose. Again, concerns that IO products undermine a robust and competitive banking system or aggravate consumer indebtedness are secondary regulatory concerns by this logic, given such products contribute first and foremost to growing the mortgage lending levels of Australia's major banks. Put simply, record mortgage debt levels for Australian's means record asset growth for Australia's major banks. This growth, in turn, builds confidence with major bank shareholders of the continued growth prospects and profitability of the banking sector. In such a framework, evidence that IO mortgage products are contributing to heightened housing price values and increased property investor activity could be viewed as positive financial developments by Australia, as opposed to events that create concern around rising indebtedness and the consequent shifting of financial risks onto Australia households.

If Australia's financial regulators were to move beyond this regulatory outlook, they would need to understand the real financial risks posed by IO mortgage products. These risks are best revealed by focusing less on macroeconomic movements across the financial economy and returning to a focus on the nature of IO products. IO mortgage products create specific constraints and allowances for the IO borrower that (aside from other financial and taxation determinants) must be enunciated to understand the continued financial risk posed by IO mortgages as they stand and potential avenues for reform of these products in Australia’s financial system.

Chapter 4: Future directions for the Australian interest-only mortgage market

Chapter 4, Section 1: Risking more for banks' financial stability: Borrowers, banks, and shifting financial risks

Undoubtedly, the increase of IO mortgages in the Australian housing market is intimately linked to a broader cultural acceptance of the rise of large, growing financial risks being borne by Australian households. (Bryan & Rafferty 2018) In weighing the allowance of these financial risks in the market Australia's financial regulators focus first on the capacity of borrowers to pay their mortgages and ensure the financial stability of Australia's banks, rather than growing financial risks faced by households through taking on high debt, alternative mortgages. The RBA's Governor asserted as much at a recent Senate Estimates session where he traded off the financial stress of households from increased interest rate rises with recent record profits from the Commonwealth Bank of Australia:

> 'I know it's hard for people to accept when they're suffering, problems with their personal finances, but the country is better off from having strong, resilient, effective banks who can provide the financial services that we need. All right?' (Lowe quoted in Maiden 2023)

This view implies that the trade-off between the financial stability of households and financial stability across Australian banks' home lending books is not only acceptable but justifiable. Or more pointedly, increased financial stress on household financial positions is a secondary consideration for Australia's financial regulators. Financial stability for Australia's regulators is ultimately about the stability of Australia's banks, not the financial health of Australian households.

Australia's financial regulators have bungled their way through cycles of failed enforcement and reform of Australia's banking and finance system. Delays in implementing mortgage product reform, Executive accountability for mortgage products, credit risk reform, and serviceability assessment buffers, all demonstrate that Australia's financial regulators prefer reactive regulation that creates minimal impacts on Australia's banking and finance system in the short term, over proactive, pre-emptive regulation that supports Australian households in the long run. Even on measures as simple as limiting debt-to-income ratios for mortgage lending, APRA waited until November 2021 to consult with the banks on limits to 'lending with a debt-to-income ratio greater than or equal to four or six times' while at the same time, Australia's system was already heavily debt-laden, with commercial and residential property lending accounted for 'more than 70 per cent of total credit extended in Australia'. (Kane 2021) These regulatory moves only make sense when understood as being implemented at a time that causes minimal impact on the financial stability of Australia's banking system.

This pattern of lacklustre regulatory reform and inaction by Australia's financial regulators is a central factor in Australia's housing rise and the appeal of IO mortgages for Australian borrowers. A combination of stagnant wages, record-low interest rates, and soaring housing values created an environment where borrowers were rewarded for taking on ever higher debt at ever cheaper levels. These borrowers simultaneously contributed to higher housing prices and a culture of ever-higher risk tolerances in the housing finance market, both for higher mortgage debts and IO mortgages.

However, here we should be careful to resist grand narratives. It is tempting to explain these developments by a basic and broad critique of neoliberalism that may be familiar to many political economists: that market operations in capitalist societies require more and more speculative financial efforts and speculative acts of all market actors to realise profit and growth. Whether that is the household, a bank, or a business. An unnuanced reading of Minsky's theories might lead to such a conclusion (1983): speculators in stable financial markets increasingly take on more financial risks as conditions remain stable until they become dramatically unstable. I point to this not to say that Minsky's work is not fuller than this view, but to say that such reductionist theories are often utilised by media commentators or casual market observers and critics. Yet these grand narratives stymie deeper engagement with how institutions like regulators and banks operate, this becomes particularly problematic when trying to define who is speculating and who is taking on risk in the housing market.

I argue that when banks lend, they do not want to speculate, but in fact, *de-speculate* their lending activities as much as possible. Banks do not want to speculate on the financial position of borrowers. Banks want to lend with guarantees, strong deposits, and assurances from borrowers. This has been visible in the rise of

Australia's housing market. Banks have extended large mortgage debts and riskier IO mortgages *because* the value of housing has continually risen. Housing value rises that trend higher, with low volatility, give banks confidence that they will get a return on their asset (which is the borrower's house while they are mortgaged) should the borrower default on their mortgage. This confidence means the banks can be comfortable extending mortgage debt and riskier IO mortgage products at higher levels in line with rising housing values. However, as the level and depth of financial risk rises in a mortgage transaction more financial and legal guarantees are required from borrowers to give the bank confidence that they can meet their repayments and that the bank can cover potential losses. Far from seeking to increase speculative financial practices in the housing market, banks see these guarantees from borrowers as critical in removing speculative lending from their home lending portfolios.

This process of de-speculation has several key benefits for the bank. First, it gives the bank and their investors confidence they can cover bad loans. Second, it helps banks assure regulators they are aiming to build financial stability into their lending practices. While banks benefit from this process of de-speculation though, in a housing market with rising values, borrowers taking out a mortgage are required to take on more financial risks to show they will be reliable borrowers. In short, the process of de-speculation for banks shifts financial risks associated with a given mortgage transaction onto the borrower who is required to take on more and more risks, through their mortgage terms and guarantees, to ensure the banks' lending is not speculative.

There are two important points to clarify about this de-speculation process. First, by de-speculation I do not mean to imply that this is a 'de-risking' process. Financial de-risking is a recent argument that has been given by some for Green New Deal proposals (Kedward & Ryan-Collins 2021). This is not what is occurring in the process of de-speculation, given borrowers are required to take on more risks in the transaction to satisfy the bank's lending conditions. Further, banks also seek to remain open to the upside price risk of any mortgaged asset, even though they don't automatically pass on the increased valuations to consumers (e.g., by reaching out to customers to refinance to better terms and products). What is at play in the process of de-speculation, is the bringing of more promises by that borrowers bear the risk for to drive down the risk and uncertainty on the lender's side of the transaction.

IO mortgage products not only can but have, played an active role in how banks de-speculate by shifting risks onto borrowers. Recently, Westpac claimed that it had miscalculated its internal serviceability buffer – an assessment rate ceiling that new borrowers are assessed against to determine their capacity to repay. Westpac's incorrect management of the serviceability buffer left borrowers assessed on the incorrect rate facing higher repayments than the maximum they had been assessed against. This was no small error. Affected mortgages included $212b worth of lending across Westpac's home lending portfolio. (Eyers 2022) Westpac's CEO, Peter King, stated that several means could be used to help ease borrowers through the adjustment to higher repayments 'including restructuring repayments, debts and putting borrowers onto interest-only repayments.' (ibid) Such examples provide clear cases in which this de-speculation process led by a bank (and in this case is driven by a bank's error) shifts new financial risks onto borrowers, which in turn create new financial burdens on the households who will have to take on these new, unforeseen costs. Hence, even as banks drive an increase in financial risks through household lending, the de-speculation process that sits behind the portfolio management of their home lending can lead senior Australian bankers like David Murray (quoted in Maley 2020) to publicly claim that 'It's not in the banker's interest to lend to people who can't repay – every lending banker knows that.'

One outcome of the practice of this risk-shifting occurring in a rising housing market is that, unless they have access to savings or securities that can cover losses or higher costs, borrowers are required to offer up terms to de-speculate the banks' mortgage lending when seeking mortgage finance. This is not limited to the borrower's individual means. It can also entail more parties joining a mortgage application to certify the viability of the borrower, by financial or legal guarantees and contributions. In Australia, it can be common for established home-owning parents or guardians to support their children's mortgage application by becoming a 'guarantor' for the mortgage, using their own assets to cover any financial losses that could occur should the borrower not be able to meet their mortgage terms.

Equally popular has been the giving of one-off financial gifts between parents to children to provide them with additional funds to meet the 'deposit gap' required to access mortgage financing. This has led to the so-called 'bank of Mum and Dad' becoming one of Australia's biggest lenders. (Hughes 2021) These developments are direct market responses from borrowers who are required to take on more risks to access housing finance. A guarantee for the bank to have the confidence to lend necessitates the taking on of a liability by the guarantor. Worryingly, there has also been strong evidence of first-home buyers in Australia (Duke 2015) using unsecured debt, such as credit cards and personal loans, as part of their funding mix to meet requirements for a standard 20% deposit to access mortgage financing.
These developments show borrowers are bearing real costs and extending their level of personal financial risk to be able to access mortgage financing while helping banks de-speculate their home lending activity. Borrowers are increasingly having to compromise significant parts of their lives by taking on high levels of mortgage debt, which limits their lives and puts them under increased financial strain. This financial strain has real social consequences. Researchers have been able to verify an empirical link between rising levels of mortgage stress and increased domestic violence in Australia and abroad (Pattavina, Socia & Zuber 2015). Mortgage stress can also lead to increased levels of homelessness (Ong, Wood, Cigdem & Salazar 2019). That is a significant social cost to bear for the financial stability of the banks' home lending portfolios.

One critical learning from these developments is that Australia's financial regulators should be far less concerned with the financial stability of the banking system and far more concerned with the financial stability of Australian households. Mian and Sufi's detailed insights (2015) into the US housing market before the Global Financial Crisis are a vital case study in this regard. Their data showed that low-to-middle households were the most at risk financially because most of their wealth was tied up directly in their property. These are households with profiles not dissimilar to the Australian households described in Bryan & Rafferty (2018): reliant on waged incomes, with little access to other assets to meet repayments outside of waged incomes (i.e., bonds, shares), and unlikely to have a bulk of savings to call upon in times of financial hardship. For borrowers who are desperate to get become home-owners, IO mortgages may be one way they can appear less speculative to the bank, while aiming to refinance at the latter point of higher reassessment, taking on higher IO mortgage-related financial risks to give the bank confidence about their ability to repay.

These high-debt, high-risk households are now increasingly to be viewed as not merely a financial demographic, but also as a political constituency. As these low-to-middle income households remain locked into high-debt mortgages and riskier mortgage products, they increasingly *need* the value of their house to increase to be able to refinance their mortgage over the life of the home loan (thereby reducing the personal financial burdens in their portfolios over time). In Australia, Federal and State governments have become aware of this and now low-and-middle-income households are often appealed to through political policies, demonstrating they are committed to ensuring continued growth in housing values occurs. Under Australia's Coalition Government, Treasurer Josh Frydenberg committed to repealing responsible lending laws which hindered the banks from lending to borrowers with riskier profiles (Butler 2020) to allow banks to lend to such borrowers. Equally telling has been policy proposals to drop deposit requirements even further for single mothers trying to access mortgage financing to as low as 2% of a housing deposit (Kagi 2021). Such policies driven by Australian governments demonstrate they are keenly aware of the need to give signals to homeowning voters that they are bringing more potential buyers of their property into the market to undergird housing values. Indeed, housing finance policies were often pointed to as a critical reason why the Australian Labor Party lost the 2019 election and were correspondingly discussed in the party's post-election analysis (Emerson & Weatherill 2019).

The need to ensure that home-owning constituencies are not harmed by government policies has led to an active stance of non-intervention in the housing market and taxation policy, even concerning reforming taxation regimes like negative gearing which are government funded. One social consequence of this has been Australian 'key workers' in socially productive roles (I.e., firefighters, teachers, nurses, paramedics) who progressively have been spatially displaced from urban areas, particularly in Sydney, due to rising housing costs (Gurran, Gilbert, Zhang & Phibbs

2018). These ‘caring classes’ whose roles necessitate a form of ‘caring labor’ (Graeber 2014) and who have not experienced real increases in waged incomes in recent years, are particularly vulnerable to housing cost increases and being ‘locked out’ of home ownership as housing price increases. As this displacement of middle-incomed salaried professionals further out of urban areas continues, products like IO mortgages are well placed to become more, not less, attractive.

One report by Genworth, a company that provides lenders mortgage insurance to home loan borrowers, recently noted that 32.5% of prospective first-home buyers are seeking an ‘entry level’ property to sell within five years of purchase. This is double the previous number of 15.8% of recent first-home buyers who were looking to sell within five years. (Genworth 2018) This increased level of interest in quicker turnaround times between buying and selling a house, is driven by a first-home buyer perspective that ‘buying is better than renting’ due to paying off your mortgage rather than a landlord’s mortgage (first-home buyer quoted in Genworth 2018, pg. 25). This is founded on an optimistic outlook on rising housing valuations that sees any form of homeownership as better than renting due to its ability to access: ‘...long term living or just entry into real estate and sell once you have a profit’ (first-home buyer quoted in Genworth 2018).

Such cohorts represent a new market for IO mortgage products: owner-occupier borrowers who want to put minimal payments to an asset they are certain will rise before selling up for a new house closer to an urban area. For those wanting to sell within five years of buying (to capitalise on a rising market), IO mortgages represent a seemingly flexible mortgage product. These borrowers take on a different risk than IO mortgage investors. If housing prices do not rise for this cohort, they not only must find new funds to meet repayments, they will be trapped in a mortgage they can’t escape with potentially no principal paid on the mortgage. For such borrowers, financial risks tip into housing security risks as they face the prospect of being trapped in a negative equity mortgage or possible homelessness.

The spread of financial risks associated with IO mortgage products has potentially severe consequences for banks, borrowers, and the Australian economy at large. Yet, many of these consequences are often banal outcomes of political and policy choices from Australia's financial and governmental institutions. Australia's financial regulators do all they can to ensure the financial stability of the banks by not driving pro-active regulation of mortgage products, leaving Australian borrowers vulnerable to banks who shift risks associated with IO mortgages onto households. Indeed, their policy positions have benefited Australia's major banks, hindered market competition, and driven IO mortgages into Australia's major banks. In turn, Australia's major banks capitalised on the market's desire for IO mortgage products to create unhealthy levels of concentrated financial risks in their home lending books, even disregarding regulatory lending caps. These are active policy decisions of banks who see that capitalising on heightened market desire for IO products is less costly than complying with regulation.

This has all been supported by a Coalition Federal Government that has had no intent to reform the housing finance market in any way that could impact the property prices of home-owning constituencies. Their policy positions have sought to lessen responsible lending criteria and push the deposit requirement for new lending lower and lower, even at a time of record low interest rates. Recent developments in political economy help highlight that these positions are not mysterious but are visible across developed economies where governments are eager for increased home-ownership rates. In their attempts to fashion a class of homeowners, governments then support the expansion of private credit to consumers more broadly (Soederberg 2014) and seek to pull back from the provision of social services to minimise their own budgetary commitments, under the guise of the need for austerity in government spending (Blyth 2015).

It is no mistake that this has also been the economic context in which the Federal Government has promoted reverse mortgages to aging Australians as a means to continue to enjoy a good standard of living. Such products ensure that the cost of consumption in later life (e.g., for healthcare) is not placed onto the Government's budget through increased requirements to fund social services. Just as telling is that these policy proposals have been announced, not by the Minister for Financial Services, but by the Minister for Families and Social Services (Kehoe 2021). Such policy proposals are appealing to governments wanting to encourage the outsourcing of social services to the private market. Fundamentally, these policies aim to promote housing wealth as a means for families to fund their own social services later in life. In doing so they lessen the impact on public funding of these same services while disregarding the social consequences for families who must use their housing wealth in such a manner and renters who have no housing wealth to leverage themselves.

This nexus between banking, government, and regulatory institutions in Australia, has driven Australians to take on increasing levels of financial risk to access homeownership. Regulators encourage this in line with their view that they are ensuring financial stability in the banking system. Governments have supported it with policies that either actively undermined responsible lending or, at the very least, were tailored to have no tangible impact on property prices. This left banks to continue to lend riskier IO mortgage products at higher levels, operating on a high level of confidence that higher housing values would continue supported by monetary and fiscal policy settings that do not interfere with property prices.

For these reasons, if there is to be any serious IO mortgage product reform in Australia that begins to unwind these financial risks for Australian households across the economy, it should not aim to drive property prices downward rapidly and quickly. To do so would be to put further pressure on the aforementioned low-to-middle-income household cohort, who may already be facing the financial stress associated with carrying an IO mortgage and a high level of mortgage debt. The social consequences of such a sharp price drop for financially distressed households could be severe and irreversible. I argue instead that there are live, viable policy proposals that demonstrate that reform of IO mortgage products is feasible. More than this, I believe considered, targeted policy reform could shift the market dynamics associated with these products and could return these forms of IO lending to something akin to their early use in Australia's history: as a form of lending that required a sharing of financial risks between the lender and borrower.

Chapter 4, Section 2: 'Grace option' mortgages: a policy proposal to shift IO mortgage risks back to banks

Australia's financial regulatory nexus has been responsible for policies that have spread IO mortgage-related risks across the Australian mortgage market and, correspondingly, the Australian economy. As has been noted, these policies are framed by a regulatory perspective that views the financial stability of Australia's banking sector as the paramount outcome of monetary and macro-prudential policy. This view also explains the lack of any appetite by Australia's financial regulators to proactively reform riskier IO mortgage products. Unlike international financial regulators who have banned IO mortgages to stop 'exuberant' property price rises in financial markets, like Singapore, APRA has decided against any form of an outright ban on interest-only mortgages (Monetary Authority of Singapore 2009).

APRA is supported by the RBA which maintains that riskier IO mortgages can provide benefits to double-income households raising kids (in the form of relief from principal payments) and a cash-flow option for investors. However, the negative social impact of interest-only mortgages can include dramatic life impacts for those who can't make repayments. To focus primarily on the financial costs or benefits of the individual mortgagor, instead of the economy-wide impact of IO mortgages products themselves, misses the point of the structural problems of widespread interest-only lending and how they are a conduit for risk-shifting by Australia's major banks onto Australian borrowers. In a market of rising asset values, where individuals have a growing concern to hold assets despite wage stagnation, access to debt (mortgages, credit cards, personal loans) acts as a 'financial veil' and hurdle for borrowers to gain access to real assets (Minsky 1975).

One bemusing, visible aspect of this demand for mortgage debt is implied in a recent home lending consumer campaign by ANZ. An advertisement of the campaign promotes a cashback offer for each new mortgage with a slogan that reads 'Home, Sweet Home Loan'. Such a slogan perfectly encapsulates the reality of many aspiring home buyers. For such individuals, home ownership simply *is* owning the mortgage debt associated with buying a home. This is undoubtedly driven in large part by a fear for many first-home buyers that they will not be able to access housing at all should prices rise further. This ‘fear of missing out’ remains a major factor behind first-home buyers in the millennial cohort taking up large mortgages on riskier terms since the Global Financial Crisis (Myers, Lee & Simmons 2019).

Consideration of further regulation of IO mortgages that would lockout certain mortgagors who could access the product could reduce the systemic financial risks associated with heightened private debt that comes from ‘rinse and repeat’ property investors who favour interest-only mortgages for withdrawing equity from existing portfolio properties for other mortgages. It would also hamper future risk-taking by owner-occupier homeowners using IO mortgages to gain a risky first step on the ‘property ladder’. Banning access to IO mortgages for such a group would see a drop in property prices across key housing markets. As previously noted, though, given the build-up of high levels of mortgage debt and the inordinate impact on low-and-middle-income mortgage households the social consequences of a rapid price drop are not desirable.

If low-to-middle-income mortgaged households cannot repay their mortgages, due to sharply falling house values, they could easily fall into sub-prime lending categories and no longer feasibly meet higher repayments when their interest-only period ends. Falling house values could drive them into negative equity, compromising their capacity to re-finance to ease the financial pressures associated with the mortgage. For these reasons, product reform rather than policy that sharply impacts housing values should be preferred to de-risk Australia’s economy from IO mortgage products.

This product reform could entail IO mortgage products being replaced with a new type of mortgage that shifts risks away from borrowers and toward the banks. Let’s call it a ‘grace option’ mortgage. On agreement between a bank and a borrower for a 30-year principal and interest home loan, a bank could offer a 3-year reduced principal period (25% of standard principal payments per annum) to be taken at some point within the 30-year period at the mortgagor's time of choosing. The remaining principal could be spread across the other 27 years of the loan. This would achieve several positive systematic social and financial outcomes. First, it retains some of the positive social benefit and financial optionality that exists for the IO mortgage borrower. That is the ability to balance payments and manage cash flow through a reduction in mortgage costs while retaining the positive consumption smoothing effects of IO mortgages.

As such, the 'grace option' mortgage would be of interest to key segments of the Australian housing finance market who want to build equity early as they enter a mortgage while retaining a level of optionality around when the borrower desires to trigger the reduced payment period. This optionality for instance could still be used to allow a two-income household the ability to care for a new child with one parent exciting the workforce as primary carer for a period, as per the RBA's justification for interest-only mortgages (Kent, 2018), or to reduce payments to undertake capital works that add value to the asset (I.e., home renovations).

Such an option is not only in the long-term interests of the individual borrower but also the bank. As the 'grace option' interest-only period would be assessed as part of the overall repayments on the entire life of the loan, this would allow for a more streamlined repayment program. Further, particularly for the Basel II 'systematically important' major banks, financial management of these assets would increase the diversity of the timing of interest-only periods on these loans, allowing for greater capital flows through repayments over time and less concentrated credit risk from standard IO mortgage take-up in rising housing markets - which concentrates IO reflated financial risks at certain points in time in the future from the point of signing. For instance, if in a particular year five-year term IO mortgages are taken out by Australian borrowers in large numbers this creates a risk concentration for the banks' lending to these households at the point of the higher principal repayment assessment five years hence. If this occurs at a point in time when housing values have fallen sharply this creates concentrated risks for the banks to manage with IO borrowers. 'Grace option' mortgages circumnavigate this by diversifying the IO period across borrowers to be taken at a time of their choosing.

One objection to such a policy may be that leaving the triggering of a 'grace option' in the hands of the borrower in economic downturns, rather than the lender, means lenders could be exposed to liquidity seizures due to borrowers collectively triggering their individual 'grace option' and halting anticipated repayment flows to lenders, in not a dissimilar way to a 'run on the banks. Would a 'grace option' mortgage, therefore, create more financial risks in a downturn? No, for several reasons. First, if such a product were offered lenders could assess the life of the mortgage and factor in borrowers taking the 'grace option' out during periods of economic decline. This would require banks to bring deeper and more robust financial assessments to how they manage the uncertainty of when a borrower could trigger their grace period across the life of the mortgage. This shifts lending risk considerations away from the borrower and back to the bank, as the bank is forced to consider the risks of the grace option mortgage for their operations. This stands in contrast to current IO mortgage products which shift risks associated with the higher repayment point entirely onto the borrower.

The practical outcome of such a 'grace option' mortgage replacing current IO mortgage products – is that such a product would begin to be lent out far more responsibly and sparingly by Australia's banks, at levels far less than those currently represented by IO mortgage products. It follows from this that a 'grace option' mortgage would, over the long-term, reduce systemic financial risks at an institutional level, as banks would lend 'grace option' mortgage products more conservatively. This in turn would result in lower levels of approvals of alternative mortgages against levels of vanilla principal and interest loans as an overall portion of a lender's portfolio. This would reduce credit risks in housing finance markets over the long run, as banks lend fewer IO mortgage products to borrowers. Further, rising house prices would be more constrained with more borrowers facing the more stringent requirements for principal repayment-based mortgages. In turn, principal and interest mortgages would become the banks' preferred form of home lending – as the risk-shifting dynamics of IO mortgage products are no longer present for the banks in the 'grace option' mortgage.

Finally, the basis of a 'grace option' mortgage still being centred on principal repayments means that borrowers are building equity. This is not a requirement of IO mortgage products. Building equity provides an avenue for borrowers to continue consumption in a downturn, as opposed to the higher risks of falling into arrears or defaulting on IO mortgages. It also adds genuine financial stability to the home lending portfolios of Australia's banks, as their lending is primarily extended to financially stable households with good equity buffers to weather financial pressures.

It is worth making a final note on the political appeal of such a realisable policy proposal. Given the movement towards grand ideas like modern monetary theory, as a vehicle to improve access to critical social goods like housing (Baker & Murphy 2020) regulating products within the market serves as a far more pragmatic and achievable policy solution to ongoing inequities in the housing market than a wholesale, national debt financing program. For both conservative (the Liberal Party and the National Party) and the social democratic parties (the Australian Labor Party) in Australia, government debt and debt control remain an issue that is of major concern to the electorate. After handing down a Federal Budget that spent $1.2 trillion by 2025, then Federal Treasurer Josh Frydenberg attempted to claim publicly that he was a fiscal conservative with a 'path to manage that debt' (Gailberger 2021). Notable post-Keynesian voices (Keen 2017) have been concerned less with rising government debt, than soaring private debt and have proposed a 'debt jubilee' to stop a broader private debt-drag effect on consumption.

The proposal for 'grace option' mortgages is a proposal that should appeal to financial regulatory policymakers genuinely concerned about high levels of mortgage debt and IO mortgage products across Australia's banking and finance system. 'Grace option' mortgages would slow the speed of lending by major banks by shifting risks back onto their books and giving more market power to the consumer in a mortgage transaction. In the process, this change would create more stable balance sheets (or Minskyan 'portfolios') for both the lender and borrower. For those concerned about potential price crashes in the housing market, this proposal would allow for a level of correction in a heated housing market to take place, with lenders re-assessing institutional risks and pricing in any potential cyclical impacts on their lending portfolio. Policy reform like this, even if not adopted, demonstrates that product reform should be a central consideration that Australia's financial regulators have ignored. Not only could such reform begin to de-risk households that have taken out an IO mortgage product it could proactively de-risk Australia's major banks, as they have taken on concentrated levels of IO mortgage lending. For these reasons, Australia’s financial regulators should remediate this lack of product reform as soon as possible.

Conclusion

Australia's housing finance system has contributed to raising system-wide financial instability in Australia's economy. This is reinforced by key economic indicators. It is visible in OECD data (2021) demonstrating Australia's high mortgage debt levels or research that reveals Australia's housing markets are some of the most severely unaffordable in the world (Cox 2023). Australia's households have been forced to engage in this financial precarity to access homeownership. It means borrowers (particularly first-time, middle-income borrowers) have to increasingly source funding from their parents (bank of Mum and Dad), use unsecured credit, or raid their retirement fund to be in a position to access homeownership. Or they have to wait for an inheritance wealth transfer of housing to access the market – if they are lucky enough to be in that position.

IO mortgage products are not a minor footnote in this story. They have been a critical finance vehicle for Australian property investors, who have paid minimal repayments through a period of record-low interest rates to build a portfolio of rapidly appreciating housing assets. The lending of these mortgages represented approximately 60% of investor mortgages by 2015 (Reserve Bank of Australia 2017). Perhaps more concerning is the number of new first-home buyers who could be amenable to taking on IO mortgage products as they seek to build equity in a home and move on to something more suitable than their first home (Genworth 2018).

With their in-built higher repayment schedule, IO mortgage products carry significant material risks to a borrower's portfolio. As long as the borrower holds the product, they hold the product's risks in their portfolio. Minsky's work (1975, 1977, 1983) allows us to identify the forms of financing that borrowers could be forced to engage with to manage growing risks in a high-debt, high-price housing market. Managing IO mortgage products well requires high financial literacy, good economic conditions now and in the future, and good portfolio management to ensure that the risks they carry do not materialise and cause severe social harm. This puts a large onus on the mortgage borrower to manage their financial risks incredibly carefully.

Sadly, Australia's experience shows that Australia's financial regulators have neither the will nor motivation to address the issues IO mortgage products pose to the country's banks, borrowers and the economy at large. By mistaking the financial stability of households with the financial stability of the banking system to lend credit, Australia's financial regulators have allowed Australians to become some of the most debt-laden, risk-exposed borrowers in the OECD. This wouldn't be possible without allowing the widespread use of IO mortgage products. Nor would it be possible with the support of governments eager to push social service costs to private households and banks that are eager to grow their profit margins and asset bases.

Reform is still possible. The 'grace option' mortgage policy I have proposed goes some way toward providing a product alternative to IO mortgage products. Not only would such an option begin to slowly de-escalate systemwide financial risks associated with IO mortgage products, but it would also give borrowers optionality. The option to have an interest-only period engaged at the time of the borrowers choosing would force banks to be more stringent in their mortgage lending practices. As noted earlier, products are historically contingent market artifacts. They are always able to be changed. The early history of interest-only lending in Australia demonstrates that there are clear ways in which such forms of lending can be used for the clear public good. For investments that benefit the borrower, the lender, and the economy. The current forms of IO mortgage lending do not achieve clear public goods in this same way. They are primarily financial vehicles that increase systemic financial risks, through IO borrowers aiming to access assets for either residential purposes (as owner occupiers) or capital gains (as investors).

If reform is not forthcoming Australia's economy will increasingly be pushed towards a state of financial fragility through its housing finance market. Minsky was aware of the deep social consequences that could come from a rapid asset value deflation in an economy where high asset values, high debt, and risky investment products were profligate. That is why he continually had at the forefront of his work the question: 'Can "it" happen again?'. Without reform of Australia's housing market and IO mortgage products, it will be a question Australians will have to continually ask themselves.

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