Title: Affordable Housing Finance in Cities: Repositioning a Paradox

Key Words: Affordable Housing Finance; Housing Finance; Housing Finance Innovation; Housing Finance Mechanisms; Social Responsibility.

Abstract:

It is argued in this paper that the underlying discourse on affordable housing finance converges with the laissez-faire market model and financial capital accumulation. In supporting this discourse the underlying theoretical principles of affordable housing finance in cities, are seen to be an evolution from market subsidies towards fully market oriented and 'innovative' risk bearing incentives – supported by the institutions that shape the market. Empirical observations tend to withdraw from this discourse by drawing on bounded housing finance systems or focus on specific policy mechanisms. In discussion it is proposed that these affordable housing finance trends in cities paradoxically add to, or are inconsequential to, housing market value appreciation - and thus further compound the affordable housing problem. It is argued that future attention should be made to Socially Responsible Affordable Housing Finance (SRAHF) given the shortcomings of this paradox.

1. Introduction

Affordable housing finance is in important need of positioning, given the weight of financial resource being allocated to deal with affordable housing in urban areas. Urban areas are home to thousands, if not millions, of economically active residents. As such, satisfying the housing demands and needs through the often-scarce supply of land and property can generate resource allocation problems in affordable housing. Many developed and developing countries have in the past half-century experienced increased urbanization. With this urbanization, comes a concentration of housing related concerns, concentrating both economically and geographically. This concentration also increases the level of interaction between the factors, which influence housing outcomes, especially in the area of affordable housing supply and finance.

Countries are experiencing this urban concentration and increasing complexity of housing related issues due to formerly rural and subsistence populations migrating to cities. As a consequence, the ability of the public, private, social and informal sectors to; regulate, fund, and provide infrastructure for this demand becomes strained. Any strains are often exacerbated by structural changes based upon globalization and local adoption of laissez faire economic principles. Furthermore, this concentrated growth in urban centres represents a significant shift in the geographies of wealth generation and accumulation. The global shift towards neoliberalism, and the free flow of capital within and across borders, places an increased emphasis on how financial resources are allocated towards housing, especially allocation at the affordable end of the market where pricing mechanisms can result in market failure. There is a role for regulation and social policies to influence laissez faire allocative decisions that could otherwise result in under provision; pricing that causes housing stress; or geographic concentrations that may not be in the wider interests of society.

This increase in concentration and growing complexity of factors makes the urban housing environment of particular importance to policy makers. A greater understanding of the seemingly ubiquitous issues of growing inequity of housing affordability in urban areas is needed. This paper looks to find coherence of the underlying issues through the three lenses of discourse, empiricism, and theory. The discourse is predominantly on the role of the market forces in neo-liberal economies and the ability (or need for) regulators to guide the supply and demand signals to achieve wider social outcomes or overcome apparent inequity. Empiricism has presented bounded observations of market mechanisms with limited wider general direct applicability. This discourse and empirical observation is presented with reference to established and new theoretical frameworks.

Definitions of affordable housing in this paper are considered as sub-market rented or owned housing, either social rented, the intermediate housing market for rent or low-cost home ownership (Gibb, 2011). Scarce supply of housing has meant that attention has been directed to financing affordable housing. For some authors, it is argued that 'the lack of housing finance would appear to be at the core of the problem' (Yeung and Howes, 2006, p.343). Financing affordable housing supply is made more complex due to the multifaceted nature of housing. For instance the housing supply generated from finance is put on the market to meet demands as a social good, consumption good, and investment good (Garnett and Perry, 2005; Squires and Moate, 2012). As a social good, housing has to ensure wider societal needs are satisfied; as a consumption good, housing is for people to gain satisfaction from buying a house and living in it; and as an investment good, housing can be bought in return for some form of financial return – such as rental income or asset growth.

This paper looks at the various ways affordable housing is viewed and the policy responses on both the supply and demand side, such as subsidies or planning allowances, and how these can paradoxically add to the price escalation that underpins the ongoing issue of housing affordability. It also considers how targeted interventions can result in concentrations of poverty, geographic asymmetries, and potential negative market responses such as 'red-lining' by the financial sector, and the implicit expectation of house price escalation in lending practices.

2. Discourse of Financing Affordable Housing Cities – A Market Convergence of Laissez-Faire Affordable Finance

The underlying discourse on affordable housing finance in cities is one that converges with the market model, is arguably neoliberal, and follows capital accumulation and privatization. This laissez-faire discourse convergence is also emblematic of financialization, largely constrained by land supply, and further contributes to uneven geographies. Moreover, the discourse tends to support a financial model of affordable housing that accepts a long-term upward inflation of housing market value. Given this accepted market model of increasing market value to fund affordable housing supply, the discourse is arguably short-sighted in the view that upward house price inflation to support financing is normatively welcomed and not problematic in the market's efficient allocation of housing.

To underscore the discourse of affordable housing finance gravitating towards a capital market model, the wider context of class-monopoly rent and capital accumulation in cities as discussed by Harvey (1974) will no doubt inform and project the trajectory of financing over the last few decades. The ability to finance resources such as affordable housing are seen by Harvey as those classes that have a monopoly over controlling rents, and thus have hegemonic influence on the control of cities to maintain this power. To illustrate, it is still pertinent today to argue that the ability to control affordable housing finance in cities is held by those 'winning' the class struggle to control rents. We can therefore see a greater control and accumulation of private capital by higher classes that return private rent income from lower classes, and thus we witness a greater physical manifestation of affordable housing that is encouraged more by private finance capital. Harvey states:

> 'The hegemonic power of finance capital is the controlling influence over the urbanization process and that many aspects of community conflict in an urban society are to be interpreted as a manifestation of class struggle around the realization of class-monopoly rent' (Harvey, 1974, p. 239).

If accumulated capital is helping to shape the discourse on how affordable housing finance is thought to be generated in cities, by extension the well-ingrained notion of asset appreciation helps to fuel the financing of affordable housing via continual long-term future uplift in house price values. In essence, financing housing, whether affordable or otherwise, is encouraged as market value uplift will have the future potential be able to cover any capital subsidy needed for affordability. Financial models based on upward asset appreciation are common to most cities, assuming there is parts of the city that can benefit from future uplift value and attract finance. Zhang (2000) puts forward the case of urban china, a discourse on restructuring around relaxing authority control to promote financial sources. For affordable housing finance in urban China, the discourse moves towards dealing with the fiscal funding deficit (at its height in the late 1970s), by a shift away from state direct funds towards increasing use of private bank loans. Here there is an evident increase in house prices rendering houses unaffordable, but for finance of housing that may be deemed affordable. The instruments also appear on the demand side - with subsidies available such as mortgage insurance, local property tax relief, and deduction in mortgage interest payments (Zhang, 2000). Affordable housing finance demand is therefore needed when paying attention to the supply side of affordable housing.

This shift from state direct provision of affordable housing finance towards less regulated market provision of affordable housing finance, sits well with the well worn discourse of neoliberal shifts in the allocation and financing of public goods and services such as housing. Beer et al (2007), explicitly demonstrate this continued neoliberal direction of less regulated market interference when financing affordable housing. For instance, it is argued in the case of Australia that it is important to recognise that neoliberal tendencies have been added to a housing system already dominated by the market (Beer et al, 2007). This market orientation is being reinforced by affordable housing finance that used a range of direct and indirect subsidies to support private investment in housing for both homeownership and private rental. In this case, affordable housing finance in the absence of direct provision of social housing, is even greater aligned with deregulating private housing markets using deregulating private finance. The discourse surrounding affordable housing finance therefore plays a part in the deregulatory and privatizing direction of travel for housing finance, urban or otherwise.

With affordable housing finance discourse being contextually set against a discourse of neoliberal advances, there are some nuances to the type of neoliberalism that is setting the tone. For Okpala (1994), financing housing in developing countries is one that repeals the role of regulation due to the role of the informal sector that opens possibilities to affordability for some in the short term. Thus, the role of more formal state imposed financial assistance being more for the long-term, due to the fragile and complex networks already operating – such as the role of family and kinship in providing affordable housing finance. Avoidance of potentially reductionist neoliberal discourse that can overshadow the intricacies of affordable housing finance is found in further nuanced liberalization explanations. For instance, when looking at the financial liberalization of major economies, Miles (1992) finds that for affordable housing finance via credit, the greatest opportunities for financial liberalization are (paradoxically for affordability) more available in nations where house prices have high or rising house prices.

Opportunities to finance affordable housing on the demand side for the consumer, against the neoliberal discourse, is one that is enabled by access to credit (e.g. private mortgages), but is also symbiotically related to the value of property that it is asset backed against. This underlines the problematic nature of defining affordable housing finance. For example, finance through access to credit for many more consumers may not necessarily provide affordable housing as defined as less than market rate via subsidy. What is clearly defined as one overarching discourse in shaping the lever of finance for affordable housing, is that finance is supported by more general policies of liberalisation and privatisation, and particularly by the growth in asset values during the 1970s and 1980s and by macro-economic stabilisation during the 1990s' (Gibb and Whitehead, 2007). For the 2000s and 2010s, these neoliberal forces and asset values continue to be of prominence, with global macro-economic stability less so.

Discourses on globalization, and more specifically those attached to notions of financialization on a global scale, further orientate the understanding of affordable housing finance. Stephens (2003) puts forward that even though globalization of finance has the potential to converge mortgage markets, the reality is that national policies have a greater influence on shaping housing finance systems, and thus restricting a potential convergence of mortgage markets more globally. With respect to affordable aspects of housing finance, despite restricted convergence suggests, there is still broad difficulties in tenure polarization as access to mortgage credit increases and subsidies for affordable housing diminish. There is a stress of policy 'choice' when considering subsidy as there is still a choice for authorities, despite the well-versed discourse of privatization being the main course of direction – he concludes:

> 'Choices also remain about the priorities of housing subsidies in both sets of country [European Single Market and former socialist 'transition' economies], but the important conclusion is that there are choices' (Stephens, 2003, p. 1024).

Affordable housing finance can often be set implicitly to the global consideration of financialization discourse. With the idea of financialization being broadly the commodification of property and land to be aligned with the forces of money. The forces of globalization and neoliberalism are clearly set in the prevailing financialization discourse by Rolnik (2013), where affordable housing finance is oriented to more market-based models – for instance it is stated that 'the withdrawal of states from the housing sector and the implementation of policies designed to create stronger and larger market-based housing finance models' (Rolnik, 2013, p. 1058). The roots of this financialization are set with another well worn discourse of capital accumulation as set out by Harvey (1989) where the takeover of the housing sector by global finance opened up a new frontier in urban areas for circulating value (Harvey, 1989).

Affordable housing considerations on the supply-side often return to discourse surrounding land supply and the inelastic supply of both land and property (Murphy, 2015). Especially as the realities of housing supply has unique land-specific location factors, this makes generalised market prices difficult to place accurately (Squires, 2013). However, translation to finance given these supply constraints on affordable housing, is that finance mechanisms in addition to making more land available could be effective. For Monk et al (2005) it is suggested that the availability of subsidy from government (e.g. SHG – Social Housing Grants) and subsidy from developers/owners (e.g. through negotiated agreements or levies) could be a financial contribution that eases the supply constraint problems that are often cited. An example from an African perspective is argued by Groves (2004) in that access to land is critical, which in turn will be supported by finance for the land and housing that could be made affordable. He states that:

> 'without headway in resolving the difficulties over land supply it is wishful thinking to assume that such developments can take place in housing finance' (Groves, 2004, p. 29).

For Glaeser and Gyourko (2003), the discourse surrounding land and property supply that sets the tone for affordable housing finance in cities; is that construction cost subsidy could only marginally reduce house prices and thus increase affordable housing supply. Zoning regulations that may subsidize affordable housing supply are also seen to have a correlation with high prices

(Glaeser and Gyourko, 2003). As such, Glaeser and Gyourko (2003) put forward that market interference, either directly financed or imputed, somehow cause the affordability of supply to be more problematic. This logic is based on correlation rather than causality, particularly as we would expect zoned areas to have high house prices, since the areas being zoned by policy would be trying to deal with the problem of high prices in the first instance. They state:

> 'Building small numbers of subsidized housing units is likely to have a trivial impact on average housing prices (given any reasonable demand elasticity), even if well targeted toward deserving poor households. However, reducing the implied zoning tax on new construction could well have a massive impact on housing prices' (Glaeser and Gyourko, 2003, p. 35).

Despite this positive and normative irregularity, the economic geographies of urban spaces matter - particularly with respect to financing affordable housing supply. Furthermore, financing urban space matters where there is an inelastic supply of housing in cities, where plots available for housing supply are scarce, and where infrastructure does not enable supply to become more elastic (e.g. through a light rail network). Financial subsidies to enable lower than market rate housing via direct grants or regulation may have little effect on affordability if house prices are sensitive to increases in supply. This runs with the position in this paper that, affordable housing supply may be paradoxically compounding the affordable housing problem.

These affordable housing finance problems in discourse are also situated in the unevenness of space where affordable housing finance is injected into the housing system. Aalbers (2007) continues more critically and normatively on the discourse of affordable housing finance, such as when lending mortgage loans towards private homeownership there is an exclusionary geographical pattern of either redlining (no lending), greenlining (favourable lending), or yellowlining (less favourable lending). With finance creating such boundaries (imagined or real) there is then an ability to pinpoint areas where surplus capital can be extracted as asset accumulation takes place. The discourse here of private finance for affordable housing is one that is partly structural, but open to wider complexities and differentials of bank choices shaped by regulation, and one that tends to be uneven when potentially dealing with affordability at the local level. He states:

> 'This pattern depends on dimensions such as distance to the city centre, building period, social class, migration, and housing prices; it is far from a straightforward pattern because it is contingent on the practices of individual banks. Only to a certain extent is the resulting geography of housing finance a result of structural changes on the national level (partly pursued at the international level); individual policies of banks also reflect and give direction to the structuring of local uneven development' (Aalbers, 2007, p. 195).

Overall, we can see that the discourse on affordable housing finance in cities is a view that laissez faire market oriented approaches are *de rigueur,* and that the principal approach is to finance on the supply side. The desires for capital accumulation in cities aid the affordable financial models through upward appreciation of asset values; and hence hold sway in the overarching paradigm of more general explanations towards neoliberalism, privatization, globalization and financialization. Financing the supply of land, which may be highly inelastic in cities, also holds strength in the discourse. However, the regulation and subsidy in finance of such affordable housing locations may paradoxically compound the affordable housing problems with uneven private lending, catalyzing further house price escalation. With this discourse in mind, we now turn to some of the theoretical principles that often underpin subsidized market orientation of affordable housing finance. Whilst, showing that the discourse is being extrapolated even further, with an emphasis on financial risk bearing innovation incentives to try and lever affordable housing.

3. Theoretical principles of Affordable Housing Finance in Cities: A Subsidized Market Towards Risk Bearing Innovation Incentives

When positioning affordable housing finance in cities, it is put forward that the underlying theoretical principles are evolving from market subsidies towards fully market oriented and 'innovative' risk bearing incentives – supported by the institutions that shape the market. More specifically, in framing these affordable housing finance principles, there appears to be a move towards a greater mix of monetary oriented mechanisms in combination with traditional fiscal and direct mechanisms. This move to more monetary oriented mechanisms has been further heightened due to the scale of the challenge in financing affordable housing development, allied with capital budget constraints, has meant that the appetite for innovative finance mechanisms has gained considerable momentum in practice and policy (Squires et al, 2016).

For Austin et al. (2014), financial mechanisms as encouraged by the planning system in the UK, Australia and New Zealand, sit within the more traditional mainstream direct and fiscal approaches; such as direct zoning or planning control, and fiscal development contributions or state grants (Squires and Hall, 2013). Fiscal oriented mechanisms in affordable housing finance also tend to engage with principles of betterment (e.g. a tax), planning gain (e.g. a supplement or levy), impact (e.g. fees), cross-subsidy (e.g. an agreement), and having a rational nexus to a particular development (e.g. a contribution) (Crook and Whitehead, 2002; Squires, 2014). Greater moves toward monetary type mechanisms are apparent though when looking at those such Tax Increment Financing (TIF) approaches to affordable housing finance (Squires and Lord, 2012; Squires and Hutchison, 2014) and Infrastructure Finance Bonds (IFB) that could incorporate some affordable housing finance (Hutchison et al, 2016). These two examples provide further monetary type mechanisms in practice and policy that demonstrate more risk bearing innovative principles. To further underscore use within the social housing sector (arguably defined as a subset of affordable housing), within Europe for instance this has traditionally been provided by local authority direct finance, and there has been recognition since the early 2000s to there is increasing engagement with risk bearing mechanisms. For instance it is argued that:

> 'working with the private sector to raise funds (and repay them) requires new skills, including risk management…The state can play a key role underwriting risks and tackling affordability through allowances but these have to be structured efficiently' (Gibb, 2002, p. 335-336)

Furthermore, despite these changes to social housing, innovations tend to be discussed in encouraging new investment in housing supply at the affordable rather than the social housing end of the spectrum (Gibb et al, 2012). Innovation in affordable housing finance can therefore be defined to some extent here as the use of loans, guarantees, equity or quasi-equity investment, or other risk-bearing tools – that can be combined with grants and involve risk-sharing with financial institutions to boost investment in affordable housing (Squires et al, 2016). Interestingly, a large amount of the housing finance theory with respect to innovation focuses on investment. For instance, in the UK context, attention has been drawn to affordable housing finance by considering Social REITs (Real Estate Investment Trusts), partnership models and bond finance (Gibb et al, 2012). This view of finance innovation as related move towards monetary types rather than fiscal or direct types. Moreover, with the addition of asset management strategies as part of an innovative monetary approach, where sinking funds can be created and capitalized in relation to rental income flows (Gibb, 2011). In doing such refinancing, a sustaining of existing stock can be affective in the short term to continue the available pool of affordable housing (Bratt et al, 1998).

At the macroeconomic level with respect to housing finance and monetary policy that encourage affordable housing, the availability of equity release is also a helpful addition to affordability from finance. Calza and Monacelli (2013) highlight that it is within those industrialized nations with well developed flexible mortgage markets that can enable equity release and integrate more variable-rate types (and hence potentially more affordable); although only as the market dictates. Moreover, at the macroeconomic level for affordable housing finance, theoretical principles to a large degree place the level of economic development as an indicator of the capacity for enabling affordable housing finance through formal housing finance systems. For instance it is argued that:

> 'it is developed countries which tend to have low macroeconomic volatility and relatively extensive credit information systems, along with variation in the strength of legal rights that helps explain the extent of housing finance (Warnock and Warnock, 2008, p.240).

It is argued therefore that there is a move of affordable housing finance theory to be gravitating towards using greater monetary types in the financial blend. In encouraging this greater weight of monetary finance type is the force driven by institutional frameworks that at the meso-level encourage the use of these risk-bearing market oriented finance mechanisms. A critical meso-economic institutional force is that of government, and there is no lack of broad theoretical underpinning of policy that believes the improvement of housing (including affordable housing) requires a solution that contains not only financial innovation but also good governance and political commitment (Kim, 1997). Government institutions certainly appear to continue in this less prudent approach when forging the rules of the game; a game that has greater influence from private money rather than public money. Malpezzi (1992), reminds us that the government's money is less effective commercially than that of private investors, but governments set the rules of the game for those investors, and thus impactful financiers of affordable housing supply. At a minimum, it is expressed by Okapala (1994) that institutions such as government set the regulatory and fiscal framework and effective supervision for other institutions to take hold.

These government institutions and the institutional frameworks that are created by government are in themselves under scrutiny when theorizing the more meso-economic concepts of affordable housing finance. Direct regulation in planning that may quickly enable affordable housing to be financially viable, is argued as inherently political given the prioritization of certain knowledge in the affordable housing evidence-based policy discussions (Murphy, 2015). Furthermore, such institutional formalization will also fall short where less formal financing institutions, such as the institution of the family or kinship, provide an effective economic allocation system that may not be laid down in formal text, but works to some degree informally in culture. It is stressed by Mukhiji (2004), that this informality should not be overlooked with respect to how institutions, particularly in developing countries, can strengthen institutions to support finance with the goal of encouraging affordable housing. As well as informal markets, there should also be consideration of external government institutional influence of a broader set of international investors that often seek secure asset backed returns. Green and Wachter (2007) note, even before the 2007-08 Global Financial Crisis, that the institutions that hold capital may have greater potency than those institutions of government that can pull the levers (e.g. setting interest rates). Furthermore, irrespective of government institutions, those more developed nations will have greater advantages in that they have easier access to capital markets, and thus be more stable to borrow at more favourable rates, and contribute to subsidizing affordable housing over the longer term. They state:

> 'mortgage markets that are linked to capital markets are better for consumers and investors than are mortgage systems where the price and allocation of mortgages is determined by government. There are countries that do not have access to long-term capital and therefore do not have fully functioning mortgage markets. The development of such markets would allow borrower access to mortgages with long terms' (Green and Wachter, 2007, p. 28)

4. Empiricism of Financing Affordable Housing in Cities: Bounded Systemic Observations as Institutional Mechanisms and Funds

Empirical observations of affordable housing finance may counter the converging laissez faire discourse that is supported by theory demonstrating a shift towards risk bearing monetary type mechanisms. It is argued in this paper that the empirical observations in academic literature largely consider broad contextually bounded housing finance systems, or focus on specific policy mechanisms that enable affordable housing finance. These contextually bounded empirical observations in a systemic approach are seen to take a more positive rather than normative stance, and thus fail to consider the wider laissez-faire discourse and conceptual principles. They often need to consider the wider direction of travel and way 'things ought to be', rather than the way 'things are' when positioning fully ideas of affordable housing finance.

A systems approach to housing finance systems is put forward by Warnock and Warnock (2008) when they state that up until their analysis, there was no cross-country systematic analysis of housing finance. What is meant by empirical analysis for housing finance systems for the 62 countries by Warnock and Warnock (2008) is a capacity for long-term lending and the ability to mobilize funds. As such, the empirical observations of housing finance here are heavily set within the market for private finance. Affordable housing finance, as stated previously is only available for those nations with 'deep systems' that could potentially fund due to having more favourable market terms over a long period. They state:

> 'a basic infrastructure that can enable a well-functioning housing finance system includes factors that promote long-term lending (the ability to value property and to seize it in the case of default, information on the creditworthiness of potential borrowers, macroeconomic stability) and factors that promote the mobilization of funds (be it through savings and deposits, capital markets, a governmental liquidity window, or secondary markets)' (Warnock and Warnock, 2008)

As well as 'deep systems' inter-analysed across countries, other empirical approaches to affordable housing finance systems are intra-analysed within national boundaries. For the US, Wallace (1995) directly studies affordable housing in the United States, and in doing so uses empirical observations that centre on affordable housing programs and the policy mechanisms that subsidise 'the system'. Empirical examples include policy mechanisms such as the significant Low Income Housing Tax Credit (LIHTC) government finance program. Such programs demonstrate a clear percentage of public subsidy in dollars as well as the number of affordable housing units generated in part by this incentive. 'In part' due to the myriad of finance blends that may be used together to make up a whole affordable housing financial package.

For US affordable housing finance, three weighted-tiered blends of finance can be observed for fiscal, direct regulatory, and monetary types (Squires, 2014). Firstly, the strongest weighted tier for mechanism being the federal-state-regional tier that devolves many significant programs and acts, that enables the affordable housing development sector to exist. Second, the county-city second tier is argued as providing power to generating finance. With some city and county autonomous available powers to exact, extract and bond - although largely controlled by the federal-state-regional tier. The third tier of finance generation are those from philanthropic, voluntary, and charity donations; these donations arguably generate a weaker weight of mechanism power, although paradoxically without such contributions at site level many developments may not be kick-started. The finance picture is therefore complex for affordable housing, and demonstrates that empirical observations often frame around the public finance policy 'system', as well as the flow of both private and public money that can quantify the housing finance system.

Another significant intra-country empirically observed approach is that of China, where empirically systems tend to be the focus of affordable housing finance, whilst in convergence stress that there is a laissez-faire discourse. Zhang (2000) empirically uses a national contextual boundary of China to demonstrate restructuring to the finance system that has relaxed government control and incentivized market institutions and instruments. Interestingly, the affordable component of housing finance more normatively emphasizes the need for greater role by government, albeit with greater connection to individual private borrowing and the market. For instance it is stated that:

> 'Given the relatively low levels of household incomes in China, the government should have a more active role in designing more affordable mortgage instruments for individual borrowing. Only when the consumption side and the production side are equally treated in the housing finance system, can a successful housing market be sustained' (Zhang, 2000, p.347)

Despite the broad historical discourse that underscores the earlier continued emphasis of market liberalization, empirical observations such as research in China tend to focus on the flow of funds in the system. Empirical evidence of empty properties (In 1995, 790.6 billion m2 property was unable to be sold) raise argument that the private market is increasingly funding housing development on the production side, creating higher prices than what would have been provided if government subsidies on the supply side were still present. On the demand side, empirical evidence of increased individual mortgage is based as either absolute currency funds appropriated, or as a static but relative percentage of key sources such as domestic loans, self-raised funds, foreign investment, and other sources of funding such as deposits and advanced payments from potential renters and purchasers. In 1998 for instance combined domestic loans and self-raised funds provided funds of 50.3% of the total (Zhang, 2000, p. 345). Deductions from these empirical observations of floor space and financial source are that affordability is an issue of the poor at the bottom of the demand curve, where they are not able to access borrowing in the financial market. On the supply side there is a financial market that encourages the building of unaffordable market rate properties as an asset in floor space even if they are left empty. The key difficulty is determining whether these empirical 'facts' are a direct consequence of the historical liberal restructuring of the system. It is argued here, that there is certainly a correlation, but causality will need to consider wider factors (such as asset accumulation in cities) as the problems flagged and measured are not confined to a closed Chinese system and occur in cities around the globe.

Further attention to China's empirical observations of affordable housing finance is worth making with respect to government subsidy on the supply side, especially as this public subsidy has been of such dominance and retraction over recent decades. Wang (2001) uses empirical evidence of static meter square typology of housing stock (e.g. type, management, ownership, and age). Wang further notes the high percentage of government supported work unit housing stock, albeit decreasing in funding currency, value and running contrary to increasing currency value investment into commercial housing units. Funds as finance for affordable housing are presented empirically as institutional aggregate currency values such as those held in the declining work unit housing fund, increasing salary contributory housing provident funds (currency value and number of people contributing) (Yeung and Howes, 2006), and additional private home mortgages (number and size of loans). This affordable housing finance source is empirically based on the demand side, largely because those associated with affordable housing are seen as those occupying more public (or social) housing and subsidized through demand side financial activity such as employment circumstances including access to private borrowing. The systemic changes in the Beijing case, as similar to the national system in China, is one that points to a neoliberal and market oriented restructuring of affordable housing. However, the empirical grounds to claim a lack of affordable housing finance on the demand side from absolute and relative currency values, misses some of the other contributory subsidizing of affordable housing – such as by the less than market rate housing produced from direct regulation on developers.

Empirical evidence of affordable housing finance from intra-national examples further show a grounding of the wider laissez-faire discourse through a 'funds' value base. Study of affordable housing finance in Japan (Tiwari and Moriizumi, 2003) demonstrates empirical evidence through the mortgage market. The affordable finance component is again part of a bounded 'system' where the loan mortgage market provides a demand subsidy via monetary type approaches. For instance the Government Housing Loan Corporation (GHLC) provides public loans at lower interest rates than offered by private financial markets (e.g. commercial banks), albeit for middle-income earners. Empirically the funds lent by institutions are measured in currency fund value, interest rates, yields, and house prices - and consider analysis of findings on efficiency based on a system that is bounded by institutions. Greater exogenous factors will need to place such systems in context and provide certainty as to whether this affordable housing finance subsidy is translated into affordable housing, or can only make some change to the risk profile in the housing finance system.

Discussion: The Paradox of Financing Adding Value to Market Value from Affordable Housing Finance

To begin leading the discussion on whether affordable housing finance can in some circumstances contribute to increasing affordability problems it is worth summarizing the foundations of affordable housing finance extracted so far. Table 1 demonstrates the key points that can be gleaned when exploring the discourse, theory and empirical observations on affordable housing finance. These key points help unpack the components of thinking in affordable housing finance - such as an increasing laissez faire approach to financing affordable housing (Harvey, 1974), a movement to focus on theory risk bearing incentives in affordable housing finance (Squires et al 2016), and empirically bounded work on affordable housing finance systems and mechanisms (Zhang, 2000; Tiwari and Moriizumi, 2003; Warnock and Warnock, 2008). It is important to take cognition of these key points when more deeply thinking as to whether we can make more defined argument of the affordable housing finance paradox.

Table 1: Key points exploring the discourse, theory and empirical observations on affordable housing finance.

Discourse	Theory	Empirical Observations
Neoliberalism , market / laissez faire approach to housing finance	Move from market subsides towards **innovative risk bearing structures**	Focus on risk bearing **monetarist observations of finance**
Financialization of housing assets, restricted supply and **assumption of capital appreciation**	Move toward monetary and fiscal / direct mechanisms	Empirical research focuses on **bounded systems** or specific policy mechanisms
Capital accumulation and monopoly rents, class struggles and **uneven geographies**	Increasing scale of affordable housing needs within constrained capital **requires innovation**	Focus is on **positive rather than normative**, and less on laissez faire discourse or theoretical principles
Assumption of accumulated **value uplift in capital subsidies**	**Direct and fiscal approaches use taxes**, fees and planning incentives	At an inter-national systemic level, **'deep' systems are required**, which promote lending and mobilise funds (via meso-economic policy and structure)
Demand-side subsidies assumed as a market signal to **encourage supply-side response**	**Monetary measures** include Tax Increment Financing (TIF) and Infrastructure Finance Bonds (IFB).	**Policy approaches are analysed within bounded context** of that national system.
More to **subsidies within a market framework**	**Innovation** uses loans, guarantees and quasi-equity and risk sharing to boost investment in supply side, for example REITS, Partnership Trusts and Bonds finance.	**Demonstrations of subsidy and production** of affordable housing units being incentivised
Role of **informal sector** , particularly in developing countries	Principles need to be considered **across all economic scales** - a macro, micro, or meso-	**Tiered and blended approaches (in US)** address fiscal; direct regulatory; and

	economic level.	monetary approaches showing links to that affordable housing sector and **specific project viability**
Assumption of house price escalation in credit availability	Impact of **interest rates and money supply** at the macro level impact on saving and investment	**Observation (in US) of a complex and myriad** of fiscal; regulatory; and monetary interventions
Globalisation is secondary to national policy is shaping housing finance	Depth, capacity and **stability of financial institutions** allows for more innovative financing practices, when supported by policy	US empirical examples **'frame' the public policy system**, and the flow of **private and public funding**
The **commoditisation of property** aligned with the forces of money	**Private money has greater scale;** influence; and commercial effectiveness than government money	Observations **(in China)** of an increasingly laissez-fare approach within **strong government controls**
Inelastic land supply - House **prices may be sensitive to increases in supply**	Inherent political nature of **high impact direct regulation. Power of capital holders** relative to government in directing lending policy	Empirical evidence **(in China)** of supply-side incentives to creates **vacant units yet affordable segment remains undersupplied**
Supply subsidies and zoning regulations can increase prices; as well as **Uneven economic geographies** of urban spaces	**Informal and global sector,** especially in developing countries	Evidence **(in Japan)** of demand subsidy via monetary approaches at **subsidised interest, but no evidence of impact** on affordable housing

Source: Authors

To put forward the summative points more purposefully, the discussion premise is put forward in this section that affordable housing finance trends in cities paradoxically add to, or are inconsequential to, housing market value appreciation - and thus often compound the affordable housing problem. To begin, Miles (1992) notes that within neoliberal economies, financial availability increases with house prices. Furthermore, a focus on increased market discipline and risk in affordable housing finance may aid in increasing house price value as capital returns are realized. In laissez faire economies, financial institutions should be expected to allocate money according to risk and return. Even with fiscal, monetary and meso-economic regulatory interventions, the government's money is less effective commercially than that of private investors (Malpezzi, 2002).

Even more futile in an upwardly appreciating market, is that subsidizing finance for housing could not have any effect on halting the amortization of assets as signaled by house price value. Furthermore, affordable house price finance, may not be easily equate to the market of affordable housing – with finance affecting price, quantity, demand and/or supply. The bounded Chinese empirical studies outlined by Zhang (2000) highlight that interventions on either (or both of) the supply and demand side cannot guarantee that these signals will be efficiently interpreted by the market into greater uptake of affordable housing.

The financing of affordable housing may be increasing housing house prices, or have an inconsequential increase in affordable housing, if house prices increase via other factors, for example, to make capital gains, even for the most well intentioned affordable housing developers. Correlated or uncorrelated to affordable housing finance, absolute values of affordable housing are rising, meaning that the relative affordability gap is widening, for example, as indicated by widening house price to income ratios. The multifaceted nature of housing needs to be remembered in understanding these complexities of finance of affordable housing: housing is a good bought and sold for purposes of consumption (e.g. satisfaction gained from the house); investment (e.g. to seek financial returns); and need (e.g. as socially desirable shelter), as outlined by Garnett and Perry (2005) and Squires and Moate (2012).

Affordable housing and its financing is arguably in the domain of society's most marginalized. A wider perspective of the issue leads us to consider the wider societal implications of the impact of housing affordability and its financing, on the economically disadvantaged and therefore to society overall and our view of 'affordability' over a longer (even inter-generational) timeframe. Housing fulfills a wider need to individuals and to society than simply consumption or a capital investment. It is widely noted as making a significant contribution to wellbeing and cohesion within society. As housing has become more financialized and laissez-faire, the occupants of social or intermediate housing are potentially becoming less capable of engagement with the financial construct of society. This could be via factors such as credit worthiness, credit rationing, increased intermediation costs, or geographic redlining. In relation to the marginalizing of lower income access to housing finance, market distortions:

> 'Lenders ration mortgages based on the dwelling occupied by borrowers with lower risk…[there is a need to] enhance the credit-worthiness of the urban poor, making them more bankable to financial institutions and enabling them to qualify for long-term credit form the formal sector must be a key objective of financial sector reforms' (Kim (1997, p. 1604).

In a similar respect in selective institutional lending, Malpezzi (1992) notes that:

> 'usually the rationing [of housing credit] benefits those who are perceived to have the lowest risk of default – often wealthier people or those favoured by government policy' (Stephen Malpezzi, 1992, p 10).

Where ownership of housing becomes less achievable, there may well be self-reinforcing financial disadvantage for those people, who unlike those in better financial positions, are unable to accumulate capital via housing. There is therefore an associated social needs housing finance gap, as we move from the centralized provision of social housing prevalent in the 20th century. There remain some questions of geographically concentrated poverty and quality of wellbeing in the 21st Century. Looking back in the timeline, as illustration, in the UK, New Zealand and Australia:

> 'since the 1970s, in all three countries the emphasis shifted to accommodating more vulnerable households, leading to residualisation and spatial concentrations of poverty' (Austin et al, 2013, p 462).

This concentration can be self-preserving where red-lining by the financial sector limits urban renewal and tenure diversification (Gibb & Whitehead, 2008). This potential impact of a concentration of disadvantage is widely recognized in housing finance, for example:

> 'concerns with demands on the federal budget and with social pathologies associated with a concentration of problem families and individuals have drained support for the development of new public housing' (Wallace 1995, p. 791).

Housing affects the financial and physical wellbeing of households more broadly, especially as the ratio of accommodation costs (rent or mortgage) are relative to income. Furthermore, the quality of housing and the spatial environment directly affect households, for example the deterioration and demolition of public apartments rendered even more vulnerable an already disadvantaged population, resulting in long waiting lists, keeping many people in crowded and inadequate housing conditions, and adversely affecting their expenditure in other areas such as food, clothing and health (Rolnik 2009).

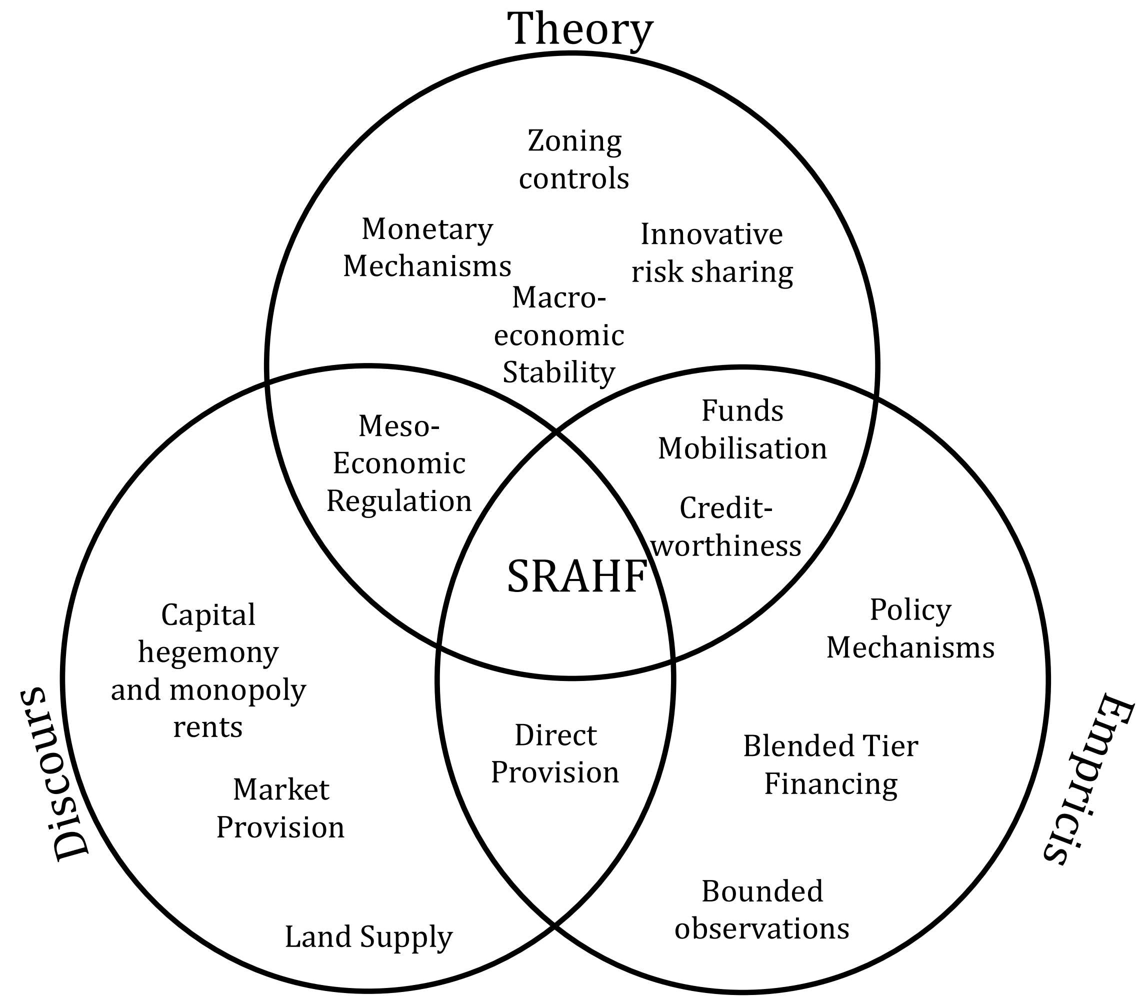
As a final part of the discussion, future attention should be made to a re-positioning of what is meant by affordable housing finance, given the paradox of the finance aspect having questionable causal influence on affordable housing in social responsibility terms (Squires and Moate, 2012). Our consideration of 'affordability' of housing finance should go beyond the fiscal affordability and should consider the wider social environment of the occupants and the effect of their accommodation on society, wider public expenditure (such as health, welfare and policing), as well as social inclusion and urban regeneration both immediately and longer term. Furthermore, greater precision in terminology will help to some degree, just as the term affordable housing has difficulty when a very high priced house may still be considered affordable if it is financially subsidized to be less than market rate.

Precision by using a term 'Socially Responsible Affordable Housing Finance' (SRAHF) will be more helpful for instance, to highlight that relative economic disparities in house price and income, and to place housing relative to other socially responsible considerations in financing affordable housing. For example, wider social concerns involving social cleavages of age, gender, religion, race may play an important nuance to what effective affordable housing finance can do to lever the underlying normative affordable housing 'crisis'. In doing so, the use of Socially Responsible Affordable Housing Finance (SRAHF) will bring greater prominence to the social quality of housing in community housing development, that is often overlooked to qualities of consumption and investment in affordable housing finance.

Figure 1, succinctly encapsulates how the notion of Socially Responsible Affordable Housing Finance (SRAHF) engages with overlapping multiple spheres of the affordable housing finance discourse, theory and empirical contexts – and the key points for affordable housing finance as brought out in Table 1. With reference to Figure 1, SRAHF enables the normative discourse to have a more tangible connection to the theoretical principles and empirical observations that are put forward in the academic literature. For instance, highlighting the social responsibility considerations of what could be generated from affordable housing finance, that could strengthen the economic and regulatory laissez-faire discourse.

Theoretical principles that underscore the social component of affordable housing could direct the broad suite of mechanisms and policies, to bring to prominence the spillover external benefits of financial blends that promote the social. For instance, grant funds can generate a greater social return, and the shift to market oriented loans and bonds that have risk bearing incentives can potentially put undue strain on public goods and services when exposed to the market. Socially Responsible Affordable Housing Finance (SRAHF) approaches may also enable empirical focus to re-centre more sophisticated evidence, including the wider unbounded non-systemic social goals of affordable housing finance. For example, evidence of affordable housing finance that orientates to the community within which it is geographically realized. This empirical evidence could then begin to position affordable housing finance as affordable greater strata of society within the locations of bricks and mortar rather than on accounting balance sheets.

Figure 1: Socially Responsible Affordable Housing Finance (SRAHF) engaging with key points in overlapping multiple spheres of affordable housing finance.



Source: Authors

6. Conclusion

This paper began with a review of the discourse on neoliberalism and the laissez faire approach to financialization of housing assets, placed within the context of globalization. The early ideas of Harvey (1974) considered capital accumulation and monopoly rents, class struggles and uneven geographies of urban spaces that this laissez faire approach can create via uneven treatment of housing by financial institutions. The discourse continues into the role of the government, working on supply and demand side interventions within the market dominated housing sector. The neoliberal discourse has seen a common move in much of the world, away from full direct public provision toward market integration. With this neoliberal financialization and commoditization of property there appears often a market assumption of house price escalation in credit availability, further exacerbating affordability.

Theory shows that there are a number of finance interventions from the macro level, down to specific site-level interventions, and with impacts on both supply and demand for affordable housing. It is proposed that the increasing scale of affordable housing needs (within constrained capital) has taken on more financial innovation, and a move from market subsides towards innovative risk bearing structures and monetary measures. The economic context of affordable housing finance needs to take into account all economic scales, including the impact of interest rates and money supply at the macro level impact on saving and investment, and the depth, capacity and stability of financial institutions. These interventions and theoretical approaches need to be considered within the context of the effectiveness of the government to intervene in highly deregulated markets, remembering that the private sector has greater scale and commercial effectiveness than government, and without the burden of political risk that is associated with housing policy.

Empirical research is within bounded systems or specific policy mechanisms, and has a positive rather than normative focus. Empirical observations of affordable housing finance are also less based on laissez faire discourse or theoretical economic design principles. The empirical examples provided are often analysed within bounded context of that national system, and highlight examples of interventions that provide localised effects. However, the empirical examples provide no clear forthcoming systemic solutions to the apparent paradox of increasing affordability issues in urban environments.

In both the developed and developing countries alike, there is interest from governments, industry, and academia in the financing of the supply of affordable housing - each with a different perspective. This interest reflects the almost ubiquitous global shift from more centralized provision to laissez-faire determination within neo-liberal policies and financial frameworks. This shift has affected the financial response, by the predominance of the financialization of housing, and indeed perhaps at the expense of the human need for shelter, and as housing as a social good. In addition, the use of tax, welfare and planning policy are affected in being encouraged to be more liberal in managing the effects of laissez-faire market forces. It is suggested both in theory and empirically that many of these responses from the government can distort market signals and result in regressive impact on affordability, such as the financial sector pricing in risk and anticipating capital appreciation. This further exacerbates affordability issues, especially for those marginalized from financial markets due to credit worthiness and surplus financial capacity to invest.

Therein lies the paradox outlined. The financing of affordable housing is predicated on laissez-faire market mechanisms, within increasingly globalized boundary conditions and expansion of neo-liberal policies. The pricing and rationing of credit for affordable housing supply and distortions created by government responses can lead to rationing of land supply and finance, further exacerbating price escalation. When our focus moves from the aggregate to the granular it can be seen that in both the developed and developing world alike, the impact of decreasing affordability of housing are societally the least resilient to an increase in the pressure of housing stress, with wider consequences for social cohesion, geographic equity, and general economic wellbeing.

This study proposes a widening of the discourse on how affordable housing finance is positioned to consider social responsibility. By widening to social responsibility in finance, we see the multifaceted nature of housing as a consumption and investment good, but more importantly as a social good in the wider public interest. Central to which is the notion of Socially Responsible Affordable Housing Finance (SRAHF), that can overlap the affordable housing finance points of reference in discourse, theory, and empiricism. As well as integrating what is meant by affordable housing finance; social responsibility includes the ‘social’ pillar along with the economic, physical, and financial pillars. It is only then that the affordable housing finance paradox can be turned into a pragmatic response, to deal with ‘affordable housing’ that is financially out of reach for many in our society.

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Acknowledgements

The authors wish to express thanks to Alex Marsh and Iain White for initial comments on the paper.