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After the Storm: Reflections on the Robustness of European Approaches to Channelling Private Investment towards Affordable Rental Housing

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Abstract: Since the mid 1990s, many governments have developed mechanisms to harness private investment for affordable housing, in the context of declining public loans and grants to assist supply. After more than two decades, a comparative evaluation of this effort is long overdue. At a time of reflection on the strengths and weaknesses of different market-orientated strategies during the Global Financial Crisis, this paper provides a preliminary evaluation of the robustness of approaches for channelling financial resources towards affordable rental housing in England, France, the Netherlands, Austria and Switzerland. Specific mechanisms examined include a tax privileged savings deposit system (France); bond issuing co-operative with public guarantees (Switzerland); private debt finance (England); mortgage guarantee scheme (the Netherlands) and special purpose banks selling housing supply bonds (Austria). An evaluation matrix is developed, and used to make an assessment of each mechanism's cost effectiveness and impact on public finances, capacity to reduce rents for tenants, distributional equity between households, risk allocation across key stakeholders, robustness under challenging market conditions and political feasibility.

While these criteria can be open for debate and more detailed investigation is required, important observations emerge about the different tensions of each model - the balance between demand and supply side subsidies, the allocation of risk between key stakeholders and the perils of increasing marketisation of affordable housing provision. This paper aims to provide a launch pad to debate these issues and promote further critical evaluative research towards developing sustainable financing arrangements to secure affordable housing resources beyond this crisis and the next.

INTRODUCTION

Traditionally, government grants and loans were the primary and least expensive means to finance affordable rental housing. Due to public borrowing constraints and the greater availability of private finance, affordable housing is now typically financed through a greater variety of commercial sources, with the consequence that government investment is a smaller proportion of capital costs. Across Western European countries, these changes have taken place over two decades but their impacts are often opaque and hard to trace. The Global Financial Crisis (GFC), the great economic storm sweeping across the continent, has brought these changes more clearly into focus. This paper reviews mechanisms to attract private finance for affordable housing in five countries now that the initial tempest has passed. Which approaches best weathered the storm and why?

The trend toward private investment appears to have been strongest in countries with large and mature housing provider systems, with ageing asset bases requiring modernisation and where finance markets are competitive, such that commercial borrowing rates are comparable with public loans. Transferring assets at discounted rates from public to private or non-profit providers, establishing intermediary financing vehicles and providing guarantees on commercial loans are examples of specific country strategies helping to channel private finance towards affordable housing. These trends are apparent in many countries, both in Europe and around the world (Lawson & Milligan, 2007; Whitehead, 2008).

Following the move away from traditional public grant/loan funded models, the proportion of direct government involvement in housing finance has tended to decline, but nevertheless varies significantly across countries. Direct government funding of affordable housing in the countries in this paper varies from almost zero in the Netherlands (where organisations were resourced by the government in the 1990s, then transferred to the non-profit sector); to small (5 per cent of total project costs) in Switzerland to 30–40 per cent of capital cost in England and Austria.

Previous studies show that the shift to private financing has deepened the inter-dependence between the business model of affordable housing providers (rent policy, asset management, investment strategy) and their social tasks (provision of quality, affordable housing), and invariably improved their skills in revenue management and the 'strategic' use of assets (Gruis and Niebour, 2004). However, in some countries it is claimed the imperative of financial performance has taken precedence over social objectives, with investment in low income rental housing increasingly subject to favourable market conditions (Lawson and Niebour, 2009). Increased reliance on debt finance and sales strategies coupled with reduced capacity to steer and finance developments by governments, has amplified the exposure of housing providers to (increasingly) volatile financial and housing markets. This paper draws on recent research that has examined how different mechanisms to increase the availability of, and reduce the cost of, private investment in affordable housing have actually worked in different countries, by examining the processes supporting the flow of investment to housing and evaluating the outcomes using an explicit and consistent set of criteria.

EUROPEAN APPROACHES

While the day to day finance, construction and management of affordable housing increasingly tends to be undertaken by private organisations, governments can and do influence the design of relevant markets and rules for key players. They do so through various intermediaries, regulations, norms as well as specific taxes and incentives, as outlined in Table 1 below.

Table 1: Affordable housing financing mechanisms

Mechanism	Brief outline
Grants	Directly able to influence housing supply, but limited to available funds and political commitment to housing. Often used to lever and secure other sources of funds.
Discounted land price	Traditionally a key approach to manage urban development outcomes, where governments are major land holders. Can be applied specifically to affordable housing goals. Subject to land availability and market conditions.
Public loans	Traditionally the primary financing strategy for social/affordable housing. Cost-effective way of fund-raising. Revolving liquidity (through loan repayments) can offer longer-term reinvestment potential. Recently, curtailed by public sector borrowing limits and the attractiveness of low private mortgage rates.
Protected circuits of savings for specified investments	Used to achieve a dedicated flow of affordable credit for affordable housing programs by providing support and guarantees for investors in socially desirable projects. Sustained in some countries, while others have dismantled them to improve competitiveness of local banks amid foreign competition.
Bank loans	Increasingly play a role in financing affordable housing, either partially or entirely. Vulnerable to changing financial conditions and alternative investments. National approaches vary in cost-effectiveness and the appropriateness of the fund-raising and distribution mechanisms.
Interest rate subsidies for borrowers	Useful in the early phase of a mortgage to reduce higher relative costs. Containing the cost to government over time relies on steadily rising wages and house prices and stable interest rates.
Tax privileged private investment	Used to channel investment towards affordable housing and to compensate investors for lower rates of return and profit restrictions.
Government- secured private investment	Government-backed guarantees to reduce risks to financial institutions investing in affordable housing, passed on via a lower cost of finance.
Tax privileges for providers of affordable housing	Many countries provide various tax privileges to registered organisations, for example income and investment deductions, depreciation allowances, reduced sales and property taxes, exemptions from capital gains tax. These allowances compensate the efforts of the preferred providers towards achieving the social policy objectives of governments.
Use of own reserves and surpluses	Mature housing organisations can leverage their balance sheets, reserves and surpluses to invest in additional housing. Funds raised may be pooled to support weaker organisations or to promote innovation and competition.
Use of tenants' equity	Some funding models incorporate a small tenant equity contribution. Governments may assist low income tenants to make this contribution. Larger contributions may lead ultimately to tenant purchase of dwellings.

Source: Milligan et al., (2009) p.28.

European countries have pursued different mixes of these financial levers in order to achieve what have often been very different outcomes for tenants. The affordable housing finance strategies of the countries in this paper and the background to their differing housing systems are summarised in Table 2.

Table 2: Housing systems and financing mechanisms

Social housing as % total stock		housing	Main private financing instrument	Housing allocation	Rent regime
Austria	21%	Regulated limited-profit associations and municipal companies	Public grants and loans combined with low interest commercial loans, raised via tax- privileged Housing Construction Bonds	Broad access with targeting depending on particular subsidy program	Cost-based
England	21%	Municipal providers, non- profits and small number of private sector providers	Bank finance a developed and competitive market. Limited use of bonds either raised directly by a housing association or syndicated. Some public grants	Broad access in the past but now more targeted as supply constrained and waiting lists long	Tenant income supported by 'housing benefit' based on % of income spent on rent
France	18%	Public bodies, non-profits, mixed companies and co-ops	Protected circuit of savings provides low interest mortgage loans for a variety of housing renovation and development programs	Broad, targeting according to subsidy program	Central government sets maximum rents, which vary by region and subsidy program
Netherlands	32%	Non-profit organisations	Bank finance in a public bank-dominated market backed by triple guarantee. Self-financing by financially robust housing associations	Broad access, narrowing income eligibility	Rent-based on utility value of dwelling and target household income level
Switzerland	8%	Regulated limited-profit associations and municipal companies	Bank finance, low interest loans from a joint state/sector revolving fund, loans from bonds issued with state guarantee plus land sales below market price	Broad access in the past with occupation now more diverse	Cost-based

EVALUATION STRATEGY AND METHODS

While evaluation of private financing strategies is timely, particularly in this post GFC era, this is not a straight forward process. The housing systems we are comparing are complex and their context differs considerably. They vary in terms of financing instruments they employ and the credit markets they rely on. Thus careful consideration of the evaluation and comparative strategy is essential.

Evaluative research is a specialist field with its own complex debates in terms of ontology and epistemology. An orthodox, quasi experimental approach to evaluation searches for empirical regularities by comparing outcomes in carefully controlled closed systems. However, given the nature of objects we are comparing, this is neither feasible nor productive (Pawson and Tilley, 1997 in Sayer, 2000:22).

Rather, we choose to adopt a more heterodox approach, which acknowledges from the outset the differing institutional basis and political-economic context of social/affordable housing systems across Europe. These differences emerge, for example, from different traditions in housing, planning and land policies facilitating or constraining market opportunities for affordable housing development. Furthermore, these different traditions have sustained varying types and levels of government support, rent setting policies and tenant selection. The scale and provision of affordable housing provision in the public, private and non-profit sectors also varies. Over time, these many differences have become institutionalised as diverse models of housing provision, which in turn have implications for the impact of private investment in financing new supply.

We first focus on the interdependence of private financing strategies with variable factors that include: government co-financing and subsidy arrangements; the realm of permitted activities and the ability to generate profits from them; and asset management, rent setting and tenant allocation policies and practices. Secondly we examine the nature of markets for the provision of finance for their activities, which are in turn are shaped by key agents, including governments. Thus, following Pickvance (2001) on comparative methodology, we do not attempt to find singular causes for similar outcomes across countries, but rather anticipate differentiating comparative analysis with plural causation.

The empirical work for this paper is based on a strategic literature review in late 2009 of key approaches to financing affordable rental housing provision in five European countries. Data was also gathered for the United States, although the findings are not included in this paper. In order to understand the role of private finance in each system, a common framework was used to collect a similar level of information describing key dimensions likely to influence the nature and flow of private investment in each case. These dimensions concerned the design and adaptation of government regulations and subsidies, asset management strategies and the realm for profit making, operational costs and rent setting formulae, as well as allocation priorities and availability of demand assistance. This framework provided the structure for describing each system and being alert to the different impacts of the GFC on the various housing financing models.

Once a strategic description of each country was made, a consistent evaluative framework could be applied. The development and selection of criteria is certainly a contested area of research, as they are a vehicle for what is perceived as a problem or area for policy concern.

Indeed, criteria for assessing private financing strategies may focus on the volume of private finance, cost to government, and completely ignore the impact on rents charged to tenants.

A wide range of criteria have been used in previous studies to assess the qualities of different national housing strategies. Analysing their text, implicit evaluative commentary can be found providing normative judgements of 'good' and 'bad' systems, which are viewed as either 'old fashioned' or 'forward looking', setting the tone for further policy advice (see UNECE, 2006; Maclennan, 2005). Over time, criteria to assess affordable housing systems develops in response to shifting political priorities, for example contribution to liveability, sustainability, energy efficiency and most recently, the role of the housing market in economic stability.

The assessment criteria for this paper were selected to highlight their contribution to a common and multi-actor range of policy objectives. They draw on Australian research on financing affordable housing which includes well-developed criteria for evaluating funding models (e.g. Allen Consulting Group, 2004; McNelis *et al.*, 2002; AHNRC, 2001). The ten selected criteria are defined in Table 3 below. They span a range of issues that may impact on the success of different financing approaches and their interaction with delivery systems. They have been applied across the cases to give a consistent assessment of each country's financing system for social and affordable housing in its local context.

Table 3: Evaluation criteria

Criteria	Scope of assessment
Cost effectiveness	Level of output of social housing and leverage of private resource for given amounts of public subsidy.
Cost reducing	Financing mechanisms provide housing at least possible cost.
Rent reducing	Financing mechanisms do not place excessive pressure on rents or increase financial risks for low income tenants.
Equitable	Directs greatest public subsidies towards lowest income households.
Appropriate risk allocation	Acceptable allocation of risk across key players – government, providers, investors and tenants. Rate of return commensurate with investor risk.
Impact on public finances	Subsidy costs are predictable, stable and reasonable for government.
Robustness	Mechanism is robust under different market conditions; and promotes market stability and moderates volatility.
Feasibility	Mechanism attracts political and stakeholder support that can be sustained.
Effective delivery	Supports delivery arrangements that improve the access of low income households to quality, secure and appropriate housing that is affordable to them.
Enhances capacity	Supports preferred housing providers to operate independently to increase the supply of social and affordable housing.

Source: Lawson et al. (2010b)

More detailed research was undertaken on two countries – Austria and England – involving field work interviews with housing providers, policy makers, financiers, academics and other stakeholders in London and Vienna. Key informants for both stages of the research are listed in the acknowledgements at the end of this paper. The broad conclusions of the research, with a focus on implications for Australia, have been published (Lawson et al., 2010b) with

the two more detailed case studies reports available from the authors (Gilmour et al., 2010; Lawson et al., 2010a).

Limitations of the research method are the restricted number of stakeholder interviews, particularly in the Netherlands, France and Switzerland. This was due to the challenges in undertaking cross-national research with a limited time and budget. Furthermore, it is too early to assess the longer term impacts of the GFC. However, the research can add value by highlighting the importance of key interdependencies, developing evaluation criteria and testing new approaches to the comparative analysis of housing finance systems.

EVALUATION OUTCOMES

The international case studies demonstrate an array and mix of particular strategies. However, each of these models is underpinned by a particular combination of government guarantee, tax privileged investment and public grants or loans, coupled to a secure and predictable rent revenue stream that is underpinned by rent regulation and/or rent subsidies. The similarities in these financing systems suggest that capital markets need the reassurance of public collateral, guarantees, sound financial management and regulation as well as revenue support (rent assistance) in order to invest. However, open markets can quickly divert resources away from affordable housing or increase the cost of that support. This interdependency and instability creates tensions within each affordable housing system, which in turn mediates the contours of debates between key stakeholders - different government stakeholders, providers, financial institutions, (mobilised) tenants - to which policy makers, either implicitly or explicitly, are exposed.

The actual outcomes of these (often implicit) tensions shape important dimensions of the affordable housing finance system: the balance between demand and supply side subsidies, the allocation of risk between key stakeholders and ultimately the degree to which 'free market' principles govern affordable housing provision. These dimensions mediate the design and adaptation of regulations and subsidies defining co-financing arrangements, asset management strategies and the realm for profit making, operational costs and rent setting formulae, as well as allocation priorities and eligibility rules for housing assistance. Viewed from this perspective, it is clear that the market for private finance interacts in many ways with the internal design of affordable housing systems.

The concept of mediated agency operating within key social relations helps to explain why there are differences between housing finance systems, and empowers policy makers to actively engage rather than merely respond to markets for affordable housing investment. Previous research has attempted to explain why forms of affordable housing provision have evolved so differently across Europe (Lawson, forthcoming; Reinbrecht et al., 2008; Malpass, 2008; Kemeny et al., 2005). In an era of increasing reliance on private finance, the existence of different, historically developed national structures of capital markets and their varying degree of closure (as examined in these studies) is certainly one important explanatory dimension, which is reinforced by our case studies.

France has a protected circuit of savings which are pooled and parcelled into low interest loans for public infrastructure, including affordable housing. These loans, both off-market and off-budget, are an outcome of a more regulated financial system, less common in

countries that have pursued more neo-liberal market strategies. In Austria, affordable housing benefits from a semi-protected circuit in which special purpose tax privileged bonds are sold on by banks to raise investment for affordable housing developed by limited profit builders. In the Netherlands, the market for affordable housing investment is open, but in practice a very small number of players, primarily public sector banks, are familiar with and supportive of the business of housing associations. To dampen the cost of lending via these institutions, a public/sector guarantee secures mortgage obligations. Where banks have been less interested in affordable housing investment, as in Switzerland, small borrowers join together to form a co-operative to launch bonds directly on the capital market, facilitated by a government guarantee. This strategy has also been employed in England, via the Housing Finance Corporation, although for most providers commercial bank loans are the norm.

The above illustrations show that governments, despite the rhetoric of state withdrawal, maintain a critical and often costly role in channelling funds towards the affordable housing sector. This is achieved by creating special purpose circuits of savings and loans, offering tax privileging returns for preferred forms of investment, adjusting lending policies of publicly owned financial institutions, guaranteeing mortgage obligations and establishing financial intermediaries to pool demands, improve financial performance and promote economy of scale. Governments also play a role in allocating risk between different players in the sector, making lending to housing providers more attractive to investors.

Risk to lenders can be reduced in a number of ways: by enforcing high standards of financial management through auditing standards and transparency in reporting; by subordinating public loans and landlord equity to commercial loans; by providing guarantees and solidarity funds to strengthen the financial position of the sector; and by securing revenue (for example by providing rent assistance directly to the landlord rather than the tenant). This risk allocation affects different stakeholders in different ways. For example, in England during the GFC, many risks have reverted to the UK government. It was forced to divert grant funds to rescue unmarketable schemes and avoid default by several housing associations, which would heighten the perception of risk among lenders and thus increase the cost of finance. Ultimately, a reduced pool of grant funds has penalised both prudent and more risk-taking associations.

This brings us to another 'creative tension' affecting the design and adaptation of social and affordable housing systems increasingly reliant on private funds. Given restrictions imposed by legislation concerning the use and sale of housing assets, private investors look towards the revenue side of the business model. Adequacy and security of revenue/assistance is vital to lenders, where capital assets cannot be exploited, and thus the nexus between financing costs and rent setting is a crucial area of policy development. Again we see very different 'solutions' to this puzzle across our case studies, which vary according to the nature of capital circuits outlined above. To illustrate this diversity, France's closed circuit enables the pricing of mortgages to be more favourable for projects accommodating lower income households – under the principle 'cheaper funds for cheaper rents'. In Austria, funds raised from the sale of tax privileged bonds must be dedicated towards investment in dwellings within defined, capped rent limits, thus foregone tax revenue is justified in social policy terms and funds are clearly targeted. Guarantees in the Dutch system can only be given for investment in dwellings which will be tenanted by households paying regulated rents and

under a certain income limit. Under EU pressure, this nexus has been sharpened. Thus, public support not only reduces risk for investors, it can also establish conditions concerning rent levels, allocation and quality. However, low risk, lower cost finance demands reliable secure revenue. Thus in the Netherlands rents were allowed to rise significantly for a period to improve the financial position of landlords and enable them to take on debt — with consequences of course for the growing budget for rent assistance, which consequently became the subject of eligibility and access reforms to reduce costs.

Repayment of borrowed funds relies on security of rent revenue and the necessity to attract private finance can guide the hand of Governments in this policy realm and force intervention during moments of crisis. As revealed in this study, the ways rents are set and indexed - cost rents, nominated rents or market rents with adjustments linked to consumer price movements, finance costs or developments in local markets — will have different impacts on financing costs. The most secure form of rent setting for private investors is the tying of rents to financing costs, as in Switzerland, indexed to changes in interest rates and secured by an adequate and direct to landlord via a rent assistance scheme. However, in higher interest, more volatile finance markets such a policy would adversely affect tenants. Ideally the responsiveness of cost rent approaches should promote cost efficiencies, which reduce the cost of finance and are underpinned by minimum housing standards that protect the quality of housing services provided to tenants.

The UK government has adapted grant levels to changing market circumstances; propped up associations at risk of default; and ensured adequate flow of revenue by setting the boundaries of rent setting and paying a generous Housing Benefit directly to social landlords, where tenants are unable to pay adequate rents. In less prescriptive regimes as in the Netherlands, the 'creative tension' brought about by the absence of conditional public loans and grants and so called 'financial independence' can promote strategies in which the social task is at risk of becoming subordinate to financial continuity – thus there is more evidence of cherry picking tenants, exploitative rents, demolition of less lucrative stock and replacement with more profitable dwellings, to be sold at maximum market price. These activities have undermined the legitimacy of Dutch social landlords, leading to punitive removal of tax privileges and new levies on generated surpluses.

A comprehensive description of each country's affordable housing system is provided in the full report of this research (Lawson et al., 2010b), which also includes our assessment of the applicable financing mechanism for each country using the criteria outlined in Table 2. A summary of the evaluation outcomes is provided in an Appendix to this paper. A much reduced version of the comparative outcomes is provided in Table 4 below. In the next section we consider lessons from the impact of the GFC.

Table 4: Comparing some evaluation outcomes

Country	Cost effectiveness	Access and affordability	Finance costs & supply	Robustness	Delivery issues
England Private debt finance model	Reliant on existence of grant and housing benefit, subject to housing and finance market conditions	Eligibility defined by Grant requirements availability of housing benefit, uncapped.		Dramatic change in cost/ supply of finance and land market post GFC	Mature provider oriented delivery system; few suppliers, market vulnerable
Netherlands Guarantee on capital market loans	Reliant on previous grossing up operation, foregoing future subsidies, and considerable housing benefit.	WSW guaranteed loans tied to capped income/rent projects.	WSW further reduces cost of capital market loans, largely through AAA rated sector banks.	Heavy reliance on sector banks, little commercial interest.	Independent associations prioritize financial continuity under increasing scrutiny
France Public savings scheme model	Off budget mechanism, very cost effective, rising cost of demand assistance.	Lowest cost loans to approved lowest income projects	Significantly longer terms & lower interest than commercial loans	Circuit robust across cycles (operated counter cyclically in GFC)	Well developed but centralised and complex
Austria Structured bond finance model	Costs of public loans and tax exemption on HCCB bonds moderate, moderate rise in demand assistance	HCCB investment to cost and rent capped projects.	Tax privileged bond channels low cost finance to meet demand	Bond mechanism is flexible, responsive and sustained despite competition for deposits.	Prescribed Business model drives efficiency Critical role of auditing body.
Switzerland Co-operative finance model	Low scale of public subsidy limits outcomes	Insufficient subsidies to ensure affordability	Pooling of smaller demands via bond issuing co-operative reduces costs	Supports continuity for non-profits when market conditions less favourable	Limited capacity umbrella orgs. provide technical support

Adapted from Milligan and Lawson (2010), and Lawson et al. (2010b).

GLOBAL FINANCIAL CRISIS IMPACTS

While our evaluative research covered a much broader range of issues, the impact of market turbulence upon private financing mechanisms for affordable housing is the focus of this paper.

The term 'Global Financial Crisis' (GFC), describes the turmoil in property and financial markets, which was triggered by the US sub-prime mortgage collapse during 2007-2008. In 2009, the effects of this crisis have become transparent. They include the failure of a number of financial institutions and their rescue by governments; falls in property and stock markets; lack of liquidity in financial markets, making borrowing harder and more expensive; a decline in general economic activity and subsequent rise in national debt. However, the impact of the GFC has not been uniform across countries. Using the fall in GDP during 2009 as a proxy for GFC impact, of the countries in this study the most affected has been the United Kingdom where the economy shrunk by 4.9% (European Commission, 2010). The other countries are all below the median decline in EU GDP during 2009 (-4.2%): the Netherlands (-4.0%), Austria (-3.6%), France (-2.2%) and Switzerland (-1.5%).

Housing markets in these countries were also differently affected – with significant declines in house prices in the UK and the Netherlands. There mortgage lending and housing prices had grown dramatically since the mid 1990s. Conversely, the impact of the GFC on mortgage and housing markets in Switzerland, where conservative mortgage lending norms still pervade, was relatively modest and contained.

In terms of impact on affordable housing provision, the GFC's effect has been strongly mediated through the design of a particular country's financing approach and the openness of mortgage credit markets for affordable housing. Further, the mix between debt, equity and grant in funding of affordable housing, and the extent to which governments implicitly or explicitly underwrite finance obligations, were also important. A summary of our evaluation on this dimension is provided in Table 5.

Table 5: Robustness of private financing instruments

Main private financing instrument	Robustness
Austria - Public grants and loans combined with low interest commercial loans, raised via tax-privileged Housing Construction Bonds	The housing banks and their tax privileged bonds, coupled with subsidy programs and cost rents have provided a tool for countercyclical construction activity, stabilising housing markets and moderating mortgage interest rates. However, the provision of a guarantee on regular savings products competed unfavourably with housing bank bonds during the GFC and volume shrank for the first time since 1993
England - Bank finance a developed and competitive market. Limited use of bonds either raised directly by a housing association or syndicated. Some public grants	Terms of commercial loans considerably worsened and competition for association business declined. Housing Finance Corporation bonds have proven counter-cyclical during the GFC, as a 'safe haven' for investors and a lower-cost form of borrowing for housing associations. In buoyant debt market conditions, costs of complexity with bonds would make traditional bank loans cheaper for most borrowers
France - Protected circuit of savings provides low interest mortgage loans for a variety of social housing renovation and development programs	The off market French circuit buffered social landlords from shrinking credit markets during the GFC. Further, the guarantee on livret A savings attracted many small deposits, growing the pool of available funds, enabling the CDC to increase activity and strengthen weak housing markets during the crisis
Netherlands - Bank finance in an uncompetitive but public bank-dominated market backed by triple guarantee. Self-financing by financially robust associations variable reliance on active sales strategies.	The WSW was used during credit crisis to assist a stagnant housing market. Associations were encouraged to absorb excess dwellings for sale in the private market via increased WSW coverage. Market share of public sector banks increased in providing credit to associations during GFC, raising competition concerns. Associations reliant on sales for their financial continuity vulnerable
Switzerland - Bank finance, low interest loans from a joint state/sector revolving fund, loans from bonds issued with state guarantee plus land sales below market price	The EGW was established at a time when conditions in the mortgage market were unfavourable to non-profit housing developers. During the GFC lower commercial interest rates were offered to limited profit builders and the role of the EGW actually declined.

Understanding the robustness of the various financing mechanisms in this survey is complex, although the advent of the recent GFC certainly offers important insights concerning the effect of a shock to both finance and property markets. Both the English and the Dutch affordable housing sectors, heavily reliant on commercial lending, have been dramatically and adversely affected by the GFC. The results have been higher financing costs, reduced levels of construction and in some cases costly intervention by central governments.

In the English case, grants were allocated from the existing pool to restructure the investment strategies of poorly performing associations and prevent their failure which

could have damaged the reputation of the entire sector further worsening their credit conditions.

In the Dutch case, the government encouraged associations to absorb excess dwellings for sale in the deteriorating private market, by lifting the price of dwellings eligible for WSW guarantee. However, the financial position of associations was also deteriorating amidst less favourable government policies (taxation, levies for renewal funds, narrowing allocation rules and less favourable rent indexation policy).

Conversely, in Switzerland, commercial interest rates declined making commercial loans competitive with loans issued by the bond-issuing co-operative, and many limited-profit builders were able to access commercial loans.

The provision of a guarantee on savings deposits from private investors was important in the recent crisis in some countries in this survey but in very different ways. The off market closed circuit of the French system which provides up to 70% of finance, actually grew during the crisis. According to Schaefer (2009) there was a rush of depositors to the CDC in 2008–9, searching for a safe haven for modest savings. These funds supported a program of expansionary public investment, including social housing, during the crisis.

However, other institutional mechanisms that were not government guaranteed were adversely affected during the GFC. Austria's HCCB became less attractive to investors who were drawn to regular savings products that were guaranteed.

England is the country in this study that most relies on private finance for affordable housing and hence warrants closer attention. There commercial bank loans are provided without government guarantee.

For several months during 2008, the GFC resulted in several English lenders declining to make new loans to housing associations due to liquidity constraints and concern over property related risk. This was followed by a period when considerably higher margins were charged on new and re-negotiated loans. The Royal Bank of Scotland revealed in November 2008 that their margins on housing association lending had risen from around 0.3% before the GFC to over 1.5% in 2008 (Dowler, 2008). Interviewees during November 2009 confirmed margin increases, citing 2% as a typical rate. This brought margins back to where they had been in the mid 1990s, before competition between lenders led to price cutting. However, despite the margin rise, all-in rates paid by housing associations fell as there has been a significant reduction in the cost of money (LIBOR) as the Government stimulated the economy. LIBOR fell from 6% in mid 2008 to 0.5% in mid 2009 (Bank of England, 2009).

One result of the re-pricing of bank margins during the GFC has been the increasing attractiveness of housing association bond issues. Several larger associations, and The Housing Finance Corporation – a non-profit syndicator – issued significant new bonds during 2009-2010 with pricing and terms often better than bank debt (Gilmour et al., 2010).

An important dimension to the GFC has been related developments in property markets. English housing associations have been more hit by the property than the finance impacts of the GFC. Where associations held assets valued against the market such as land-banks and properties for sale, the fall in property values needs to be reflected in their accounts which could cause them to post losses and breach lenders' covenants. In order to avoid this risk the

regulator provided additional grant to some associations to enable them to change the tenure of some stock from sale (which is exposed to market value reductions) to social rent (which is not). The cost to government is estimated to have been £2.8 billion (€3.2 billion) to the end of 2008 to re-capitalise housing associations, with some of the largest recipients requiring over £250 million (€288 million) to maintain solvency (Inside Housing, 2009: p.9). Therefore even in England, where much affordable housing finance has been left to the market without formal guarantees, during the GFC the government has had to step-in. This is parallel to the US, another country that despite using non-guaranteed private finance for affordable housing has required government funding to rescue the Low Income Housing Tax Credit scheme (Joint Center for Housing Studies, 2009).

CONCLUSIONS

The myth of the Dutch miracle (Gruis and Nieboer, 2006) - subsidy free affordable housing supply financed entirely by well functioning capital markets - has been dispelled by market processes during the late 2000s, exacerbated by the GFC. In some countries, severe market failure necessitated the costly and continuing role for governments in providing equity, guarantees and more active regulation to ensure adequate levels of investment, amidst unfavourable credit conditions and volatile housing markets. In other countries, less vulnerable mechanisms for channelling funds performed a counter-cyclical role sustaining the supply of affordable housing when and where needed. Lessons from this experience should inform future developments in housing finance and methods to steer investment towards socially and environmentally productive forms of investment, such as affordable rental housing.

Sustainable private investment flows towards a sound business model and a responsive subsidy regime that can be adapted to market circumstances. As recent events have shown dramatically, Governments are not immune to pressures in off-budget financing systems. Thus policy makers and regulators must carefully assess the dynamic conditions faced by housing providers, especially to better understand the changing effects of their policy and co-financing settings. Private investment comes at a public price – it is no magic bullet and careful evaluation is required to assess the relative merits of more direct public financing mechanisms over complex market-driven products, which may be costly to administer and more difficult to assess their effectiveness.

Simpler, more direct and transparent arrangements appear to work better. Amidst increasingly volatile housing and finance markets, semi closed circuits and special purpose investment vehicles have proven a more effective buffer more than open markets, during of the storm of credit scarcity and rising costs of finance. These mechanisms have provided governments with the tools to stabilise not only housing markets but also to secure employment in related labour markets.

Appendix

Table A1: Evaluation of the protected savings circuit in France

Cost-effective	The main cost to government is indirect, through tax exemptions for interest on savings in Livret A accounts. There is also an implicit but unfunded guarantee on CDC loans. However, the CDC actually provides a return to the government not only in the form of cost-price offmarket loans, but also a return on its investments. However, the scale of this return needs to be established.
Cost-reducing	CDC contributes the largest proportion of finance for social housing projects (70%+). Interest on CDC loans is lower than commercial rates and terms are very long (35–50 years). Loans are guaranteed by local authorities, further reducing their cost. Recent negotiations between the CDC and deposit-taking banks have reduced management fees and thus interest rates.
Rent-reducing	Rents are based on net construction costs which are reduced by low interest loans from subsidy programs. At times interest has been lowered in return for rent freezes. Loans are derived from Livret A deposits via the CDC. It provides the lower-cost loans to those programs targeting the lowest-income households. Their off-market cost-price loans are claimed to be considerably lower than market alternatives.
Equitable	Only public entities and non-profit companies can benefit from CDC loans. It has a very equitable interest rate policy. The CDC supports a variety of housing subsidy programs: the lowest-cost loans are for projects that target the lowest-income households.
Appropriate risk allocation	There are loan appraisers within the CDC with expertise in social and affordable housing. The guarantees from local authorities and the mutual fund (CGLLS) have never been drawn on. The setting of the interest rate is a political decision, subject to competing tensions between various parties. In the past the state has reduced public loan interest rates in order to keep rents low.
Impact on public finances	The CDC is a government-owned financial institution. The deposits it manages require implicit taxation subsidies and savings guarantees to be attractive to households, as well as a government guarantee for its loans (which has never been drawn on). Further research could determine how expensive these implicit costs are and the return on investments from the CDC, as mentioned above.
Robustness	Unlike private financing mechanisms in some other countries, the French model has been a buffer for social landlords during the GFC. During this period, the guarantee on savings has attracted many small deposits. The CDC is being used to strengthen weak housing markets during the crisis.
Feasibility	The CDC has been established for almost 200 years and plays a significant role investing in public infrastructure through cost-price off-market loans. Recently, it has responded to criticisms from the EU concerning competition among deposit-taking institutions by broadening the number of banks able to host <i>Livret A</i> accounts. As a result, management fees were actually reduced.
Effective delivery	Loans are only issued on the basis that they meet the standards and affordability conditions of the subsidy programs from which they benefit. Only program-approved projects are able to receive a CDC loan.
Enhances capacity	The loans are only accessible to public and non-profit enterprises. Loans are lower than commercial loans, reducing the financing costs of social housing projects. France has produced a higher rate of social housing than any other European country in recent years.

Table A2: Evaluation of the Swiss bond-issuing co-op financing model

Cost-effective	The Swiss model is one of the least costly in terms of direct and indirect subsidies. However, it is not able to contribute a large volume of affordable rental dwellings in the tight rental market. In the context of once high mortgage interest rates, absence of investor interest and lack of public finance, the EGW provided an important mechanism to pool demands for mortgage finance as larger bond issues and channel cheaper loans towards the non-profit sector since 1991.
Cost-reducing	Loans from the EGW have offered better terms. They finance up to 70 per cent of project costs at around 3 per cent interest. Currently, market rates have declined and commercial banks are now enticing limited-profit housing associations (LPHA), but the EGW remains competitive and on-call when less favourable conditions arise.
Rent-reducing	In a liberal cost rent regime, lower-cost finance directly benefits tenants. Currently there are very few subsidies to ensure new dwellings are affordable, compounded by limited demand assistance.
Equitable	Affordable rental housing can be found in more mature co-operatives with older dwellings financed under previous subsidy programs. These dwellings are allocated to income-eligible households, whose incomes may increase over time. New small co-operatives are not able to provide affordable rental housing, without the assistance of solidarity funds and government support.
Appropriate risk allocation	Under the liberal cost rent regime, landlords are entitled to raise rents when financing costs increase. The government bears the risk of non-payment of mortgage loans by non-profit housing associations from the EGW. A fund for this purpose has not been drawn upon since 1991. Solinvest has been established to improve the financial position of new co-operatives.
Impact on public finances	The federal government has provided contributions to the revolving fund, significantly expanding its capacity in recent years. The guarantee fund has not been drawn upon.
Robustness	The EGW is useful when conditions in the mortgage market are unfavourable to non-profit housing developers. When interest rates are low, finance can be obtained elsewhere.
Feasibility	Federal treasury favours contribution to the revolving fund (over which it received income) and guarantees for the EGW mechanism over direct loans.
Effective delivery	Non-profit organisations are typically very small organisations, often managed by volunteers. New co-operatives require significant commitment of members, including tenant equity, to get established. Specialist legal, financial and management expertise is provided by three umbrella organisations. Larger co-operatives have these services in-house.
Enhances capacity	EGW loans with guarantees have promoted stability and security for the sector. All funds are directed towards registered non-profit landlords. However, the scale of provision remains too low to address a serious shortage in affordable rental housing.

TableA3: Evaluation of private finance in England

Cost- effective	Most private finance is in the form of straightforward bank loans which are relatively low cost to put in place and monitor. A small proportion of private finance is through bond issuers. This is more complex and costly to issue.
Cost- reducing	Since the introduction of private finance in 1988, competition between lenders drove down the cost of bank borrowing. During the GFC, and subsequently, bank margins increased though the net effect was moderated by lower costs of finance through fiscal policy.
Rent- reducing	Lower borrowing costs could enable housing associations to moderately reduce their real rents. However, as low income tenants receive housing benefit, this will not flow through as a cash benefit to tenants.
Equitable	There is no direct link between housing association funding and rent paid by particular tenant cohorts. Associations can use funds for whatever purpose they consider appropriate provided that they conform to their constitution and meet regulatory requirements.
Appropriate risk allocation	Though bank lending does not depend on a government guarantee, the government through its regulator stands firmly behind housing associations. No banks have lost money lending to associations. Therefore it could be argued banks face little commercial risk.
Impact on public finances	Raising private finance has allowed the government to reduce the proportion of funding it supplies towards new affordable housing construction from 100% to below 50%. Housing association debt does not appear on national accounts as public borrowing.
Robustness	Although there was a short period of disruption to debt markets in 2008, banks have continued to lend to housing associations during the GFC. With government support, the private finance initiative has proven robust.
Feasibility	Private finance requires banks to understand the (modest) risk of lending to housing associations. This did not prove to be a problem in England, and there are a large number of lenders looking to lend to the sector – although fewer than before the GFC.
Effective delivery	Housing associations have grown through policy levers such as private finance and stock transfer. They have achieved scale economies and are efficient tenancy managers.
Enhances capacity	New supply of affordable housing production has been maintained over the last two decades, but at a lower level than needed to replace the loss of social housing sold to sitting tenants through the 'Right to Buy' policy.

Table A4 Evaluation of the Dutch Social Housing Guarantee Fund

Cost-effective	The WSW has proven to be an influential and cost effective mechanism to improve access to credit markets for approved association developments, even during the GFC. However, the guarantee largely applies to loans issued by sector banks (88%) that specialise in channelling private finance towards the public sector - Bank Nederlandse Gemeenten (BNG) and Nederlandse Waterschapsbank (NWB), which are both AAA rated.
Cost-reducing	WSW covers 80% of loans to the housing sector, reducing rates by a considerable 1.0—1.5%, with its triple-funded guarantee structure and AAA credit rating. The spread on WSW paper was around 35 basis points above the rate payable on Dutch state paper in 2008 (2007: approximately 26 basis points) (WSW, 2009).
Rent-reducing	There is no prescribed, regulated relationship between cheaper finance and lowered rents, as in Austria or France. The Netherlands has a nominated rent system based on a points system, which is determined by government policy that is currently indexed to inflation. In the past, rents have been allowed to increase faster to secure revenue for independent housing associations.
Equitable	The WSW guarantee can only apply to dwellings under a prescribed cost limit. Recently this was increased to enable associations to purchase dwellings in the depressed private market.
Appropriate risk allocation	The risk is shared by players with a vested interest in the financial continuity of independent housing associations. So far associations have largely been financially strong, but the situation should be monitored as there are signs of distress under changing conditions,.
Impact on public finances	The Dutch strategy rests heavily on the publicly funded foundations of the past. Since financial independence associations have had to rely on their own equity, rent surplus and commercial funds to survive and fulfil their social task. The WSW was initially financed by the government and is now funded by housing association members. The guarantee has not been drawn upon since its establishment. Its obligations and capital position are very sound and it has sustained a AAA rating for more than two decades.
Robustness	The WSW has been essential in the current crisis, where banks have been reluctant to provide long-term credit. With some associations reliant on sales for their financial continuity, and less favourable government policies towards them, there are real questions about their capacity to grow and provide an adequate range of housing options.
Feasibility	In the context of strong public banking corporations with a vested interested in associations' success, the WSW model has been a success. However, there are real tensions in the housing sector concerning the role and regulation of associations since their financial independence.
Effective delivery	The WSW is a non-profit organisation, which is recognised (World Bank, 2003) as a European leader in social housing guarantee funds which have promoted solidarity across a variable housing sector. The WSW has developed innovative monitoring strategies. It co-operates with the CFV.
Enhances capacity	Financing costs play an important role in defining the strategies of housing associations. The WSW plays a very useful role in giving confidence to lenders and has been essential to ensure access to capital markets. The WSW has played an effective role in risk assessment and the development of financial management expertise within housing associations. WSW's work in monitoring and improving the financial position of associations has underpinned their financial independence.

Table A5: Evaluation of the Austrian housing bonds and housing banks

Cost-effective	During the 2000s the HCCB quickly established itself as a mainstream investment choice for individual households. While the take-up of bonds are considerable (300,000) the main cost to government in terms of tax deductions is modest, but more evidence is required to substantiate estimates. The low-rate loans able to be issued from the bonds are targeted to the cost rent cost-capped rental sector.
Cost-reducing	Tax privileges make low-return bonds attractive to investors, consequently allowing for low interest loans at up to 1 per cent below market rates. There are regulations which require LPHAs to use loans under a defined basis point limit above the EUROBOR rate.
Rent-reducing	Under the cost rent system, lower financing costs have a direct impact on rent levels. Any landlord can use the funds raised by the bonds, providing the conditions of cost rent cost-capped housing are met. HCCB-financed loans contribute 50 per cent to project costs, thus their capacity to reduce financing costs is significant.
Equitable	All investors receive a basic tax benefit on the first 4% of returns. Low and moderate income HCCB holders can also deduct the cost of purchasing the bond. The amount which can be deducted is capped but increases as their incomes decline. The financing of new housing increasingly relies on both developer and tenant equity (the latter leading to right to buy), prompted by the declining role of public loans amid rising
	construction costs.
Appropriate risk allocation	There is no formal guarantee in the case of default by LPHAs, which is given by the government to the banks for the loans based on HCC bonds. This is not considered necessary, given the role of public loans in project finance.
Impact on public finances	Austrian governments, at all levels, play a key role in subsidising social housing estimated to cost 1% of GDP. Federal government indirectly subsidises social housing via HCCB's tax exemptions at an estimated €120 million (\$192 million) p.a. State governments provide subsidy programs and local governments play an important role in facilitating access to land.
Robustness	The housing banks, coupled with subsidy programs and cost rents have provided a tool for countercyclical construction activity, stabilising housing markets and moderating rents in a growing city. However, the provision of a guarantee on regular savings products during the GFC has drawn investors to supposedly safer investment products.
Feasibility	Declining public loans and the strict cost rent limits required a joint approach by the federal government and banks. The HCCB is a mechanism supported by private banks, which compete for LPHA business.
Effective delivery	Five housing banks, subsidiaries of bank groups, compete to fund the LPHA sector, increasingly with competition from commercial banks. They have strong expertise in assessing proposals within the cost rent regime. There are cost efficiencies being located within the mother bank.
Enhances capacity	Given the increasing reliance on commercial loans, the housing bond and housing banks play a crucial role in reducing the volatility and level of interest rates affecting mortgages.

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