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Responding to the Impending Repossessions Crisis

Gwilym Pryce

Professor of Urban Economics and Social Statistics
Department of Urban Studies
University of Glasgow
Glasgow G12 8RS
Tel: 0141 330 5048
Email: g.pryce@lbss.gla.ac.uk

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1. Introduction

This paper was commissioned by Communities and Local Government in November 2008 in response to the rise in repossessions. It addresses the macroeconomic and social impacts of repossessions and makes recommendations for government action.

2. Impacts of rising repossessions

Wealth Effect

The following wealth effects from rising repossessions can be anticipated:

- There is an immediate wealth effect on those repossessed and on those for whom house prices are depressed because of the repossessions in their locality. This is likely to have an adverse affect on aggregate demand via reduced equity withdrawal, though we were not sure how great this direct effect would be if the housing sector is already depressed.
- The effect of macro house prices on aggregate demand is well established. For example, Goodhart and Hoffmann (2008) use panel data on 17 industrialised countries to assess the links between money, credit, house prices and economic activity. They find that, '(i) There is evidence of a significant multidirectional link between house prices, monetary variables, and the macroeconomy. (ii) The link between house prices and monetary variables is found to be stronger over a more recent sub-sample from 1985 to 2006. (iii) The effects of shocks to money and credit are found to be stronger when house prices are booming.' (p. 180). See also Greenspan and Kennedy (2008)
- However, the effect of repossessions on macro house prices is less well established, though there have been studies that have estimated the local effects (see below), and there is unpublished work by Baddeley (2005) that finds evidence that repossessions are part of a herding effect that drives house price volatility.

Psychological and Neighbourhood Effects

One should bear in mind that the headline macro effect may not be a good guide to the true cost to society (or the exchequer) of a spike in repossessions. This is because there may be impacts on consumer confidence, and localized effects that cause longer-term problems that are expensive to redress.

- The less tangible psychological effect arises from the huge negative publicity repossessions attract, which is likely to further depress consumer confidence and reduce the marginal propensity to consume. Again, we were not sure how big the net effect of this factor would be if the market is already depressed.
- In addition to the macro effects, the results of Schuetz, *et al.* (2008) based on on property sales and foreclosure filings in New York City from 2000 to 2005 provide 'some evidence that the effects of foreclosures extend to neighboring property owners as well as the distressed borrowers themselves, which may offer a stronger justification for government intervention.'

(p.20) If clusters of repossessions precipitate neighbourhood decline, the long term social costs could be substantial and difficult to reverse. Schuetz, *et al.* (2008) suggest a number of channels through which foreclosures impact on surrounding housing prices:

1. Maintenance Externalities: 'property owners who receive foreclosure notices may be less likely to maintain or upgrade their properties, either because they have less incentive to maintain property they may lose or because they cannot afford regular maintenance. Properties may start to show visible signs of neglect, which may make the surrounding homes less desirable.' (p. 8)
2. Vacancy Externalities: 'after completion of foreclosure proceedings and eviction of the delinquent borrower, the property may sit vacant and suffer further physical decline. Vacant properties are likely to depress surrounding property values because they contribute to neighborhood blight, may attract vandalism and crime, and more generally signal that the neighborhood is not stable. Even if the vacant properties are well maintained and do not attract criminal or other undesirable activities they add to the local supply of available units, and will thus depress property values.' (p. 8)
3. Ownership Structures: 'distressed properties sold either at foreclosure auctions or pre-foreclosure sales may be more likely to be sold to investors and become renter-occupied, which may lead to lower levels of maintenance even after the properties are re-occupied.' (p.9)
4. Discount effects: 'properties with distressed loans are likely to sell at a discount – both at pre-foreclosure sales and at foreclosure auctions – thus affecting the price of “comparables” used to estimate neighboring property values' (p. 9).

The longer-term effects arise, for example, from the impact on crime and health:

5. Crime: Immergluck and Smith (2006) examine the impact of foreclosures of single-family mortgages on crime rates at the neighborhood level in the US. They find that higher foreclosure levels contribute to higher levels of violent crime: "A standard deviation increase in the foreclosure rate (about 2.8 foreclosures for every 100 owner-occupied properties in one year) corresponds to an increase in neighborhood violent crime of approximately 6.7 per cent."
6. Health: Nettleton and Burrows (1998) argue that 'the consequences of mortgage indebtedness are likely to have profound psychosocial consequences for those who have direct experience of it' (p.731). They find that in the UK, 'mortgage indebtedness has an independent effect on the subjective well being of men and women, and that it increases the likelihood that men will visit their general practitioners.' (p.731). However, methodological complexities make it 'difficult to judge the extent to which poor health is caused by the onset of mortgage indebtedness or whether those with worsening health are more likely to find themselves in difficulty' (pp.745-746). More recent research, however, appears to arrive at firmer conclusions:

'For male heads of households housing payment problems and entering arrears have significant detrimental effects on mental well-being and for

female heads of households longer-term housing payment problems and arrears have significant detrimental effects on mental well-being. The sizes of these effects are in addition to and larger in magnitude than those associated with financial hardship more generally. The net effects appear to be relatively stable over the time of the panel data... This study provides evidence that housing payment problems have independent psychological costs over and above those associated with general financial hardship. The magnitude of the effect is similar to that shown for marital breakdown and job loss.' (Taylor, *et al.*, 2007, p.1027).

Impact on the Relative Benefits of Homeownership

Volatile repossessions may reduce the benefits of homeownership for low-income households relative to wealthier households by (i) increasing the Negative ratchet effects for the poor; (ii) lead to a less favourable risk/return trade-off; and (iii) lead to higher costs of borrowing for the poor. There may therefore be a case for dampening the amplitude of the repossessions cycle. These are under-researched themes (based on Pryce, 2008, and Pryce and Sprigings, 2009), and so should be viewed as conjectures, albeit potentially important ones.

(1) *Negative ratchet effects for the poor?*

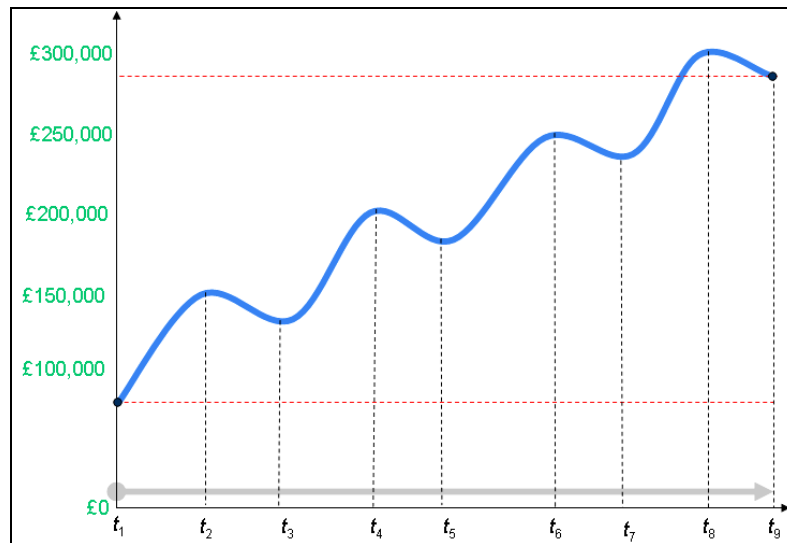
Consider the following hypothetical example. Assume that a person typically faces 4 housing cycles over the course of their 40 year housing career – i.e. a housing boom every 10 years. Each of these cycles is broken into 2 periods: upswing & downswing, yielding a total of 8 intervals connecting 9 time points: t_1 to t_9 . Assume that the price of a given type of house = £80,000 in t_1 , = £280,000 in t_9 . For sake of simplicity, assume also that rental costs = mortgage costs = £3,000 per year; i.e. a total of £120,000 over 40 years, and that RPI = 0 (or that the calculations are in real terms).

Now suppose there are 3 types of person:

- Person A: enters OO at t_1 and stays in OO until t_9
- Person B: enters OO in slumps and leaves during booms;
- Person C: enters OO in booms and leaves during slumps

The scenario facing Person A, who stays in owner occupation from t_1 to t_9 , is depicted in Figure 1. Their Gross Revenue by the end of their housing career = £280,000-£80,000 = £200,000. Now take away rental/mortgage costs of £120,000 to leave a Net Profit of £80,000, assuming no transactions costs.

Figure 1: Person A



For Person B (Figure 2), who enters OO during slumps, leaves during peaks, the housing cycle is a way of ratcheting up additional gains. She buys low and sells high, leading to Gross Revenue = £70,000 in t_1t_2 + £70,000 in t_3t_4 + £70,000 in t_5t_6 + £70,000 in t_7t_8 = £280,000. Now take away rental/mortgage costs of £120,000 to leave a Net Profit of £160,000 assuming no transactions costs. So, even though Person B faces exactly the same house price trajectory as Person A, she makes twice as much profit.

Figure 2: Person B



Now consider Person C (Figure 3). He enters OO during booms, and leaves during slumps, and so the housing cycle becomes a mechanism for ratcheting-up significant losses. He buys high and sells low, leading to Gross Revenue = -£20,000 in t_2t_3 -£20,000 in t_4t_5 -£20,000 in t_6t_7 -£20,000 in t_8t_9 = -£160,000. Now take away rental/mortgage costs of £120,000, and person C has made a Net loss of £280,000, assuming no transactions costs. So, even though Person C faces exactly the same house price trajectory as Person A and Person B, he makes a significant loss compared to their significant profits.

Figure 3: Person C



How does a cycle of volatile repossession rates imply a Person C type negative ratchet effect for low-income households?

The effect arises from the coincidence of housing, credit and employment cycles. During a housing slump, house prices are low, but you can't buy unless you have a large deposit because credit market also in a slump. Only the cash-rich can take advantage of low house prices (i.e. if you are cash rich you are more likely to be able to choose the Person B pattern of purchase). But because the housing slump coincides with the employment slump, if you already own, you more likely to face unemployment, particularly if you are in unskilled or semi-skilled work. During a housing boom, credit market are also in a boom; lax lending practices such as 100% mortgages, entices low income/high-risk households into home ownership at the worst possible time in the housing cycle.

So if you are low-skilled, low income, and asset/cash poor, you are more likely to be subject to the purchase pattern of Person C.

As noted, this is an under-researched area, but note that Boehm and Schlottmann (2004) find in the US 'a high likelihood that lower income families will "slip" back to renting after attaining homeownership' (p. 128). They conclude that, "To the extent that low-income and/or minority families are unable to adjust their level of consumption of owned housing freely and may even have a high likelihood of returning to rental tenure, homeownership may be less beneficial than it otherwise might be" (Boehm and Schlottmann 2004 p.129).

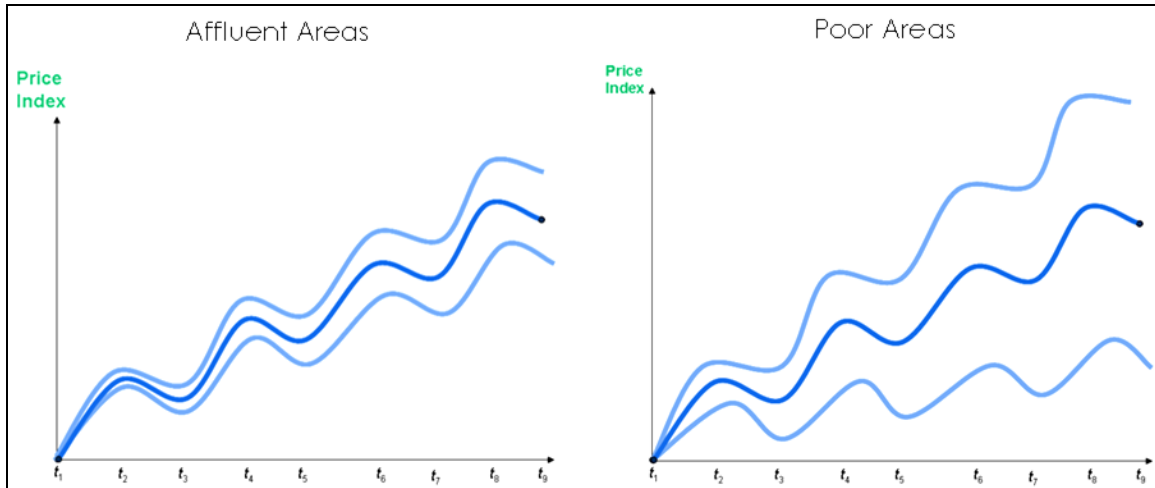
Note that our hypothetical example does not take into account the high transactions costs associated with moving in and out of home-ownership solicitors' fees, mortgage arrangement charges, estate agent charges, survey costs, Stamp Duty the size of these costs probably larger in relative terms for low earners.

An important potential consequence of a repossession cycle of large amplitude is that it may create asymmetries in the relative returns to homeownership for different social groups.

(ii) Less favourable risk/return trade-off?

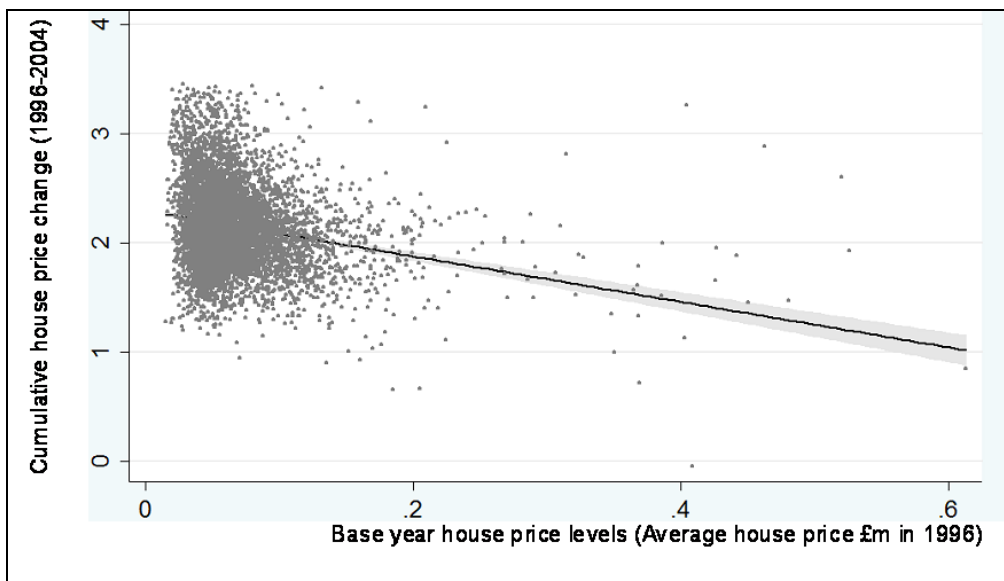
These asymmetries will be greater still if there are neighbourhood/spatial impacts of repossessions of the kind discussed by Schuetz, et al. (2008) and others. This is because it may affect the risk/return trade-off. Even if poor and rich areas have the same mean trajectory for house prices, there may be a wider span of trajectories in low-income areas (as depicted in Figure 5).

Figure 4: Wider Span of Trajectories for Poor Areas



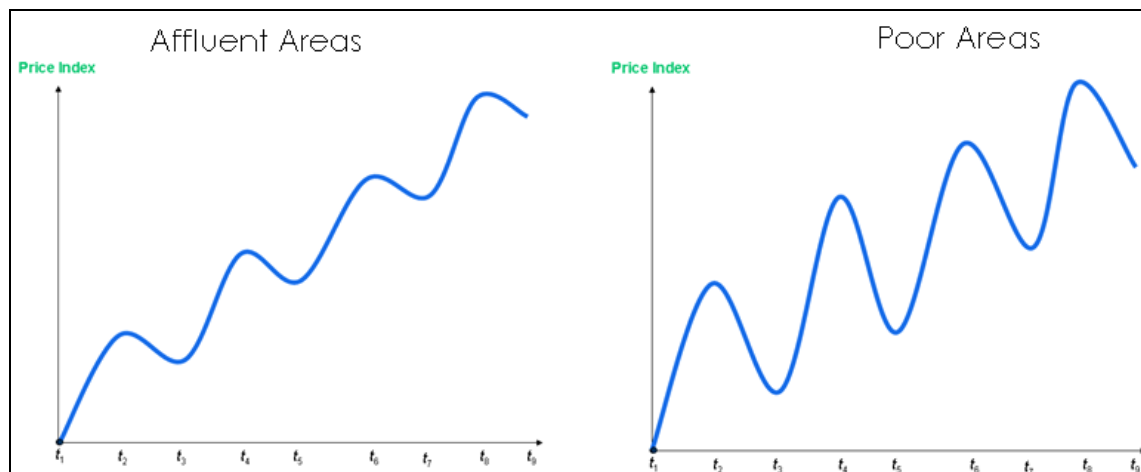
Results from Levin and Pryce (2008), presented in Figure 5, provide initial evidence that this may indeed be the case, with an apparently wider spectrum of price appreciation for low house price areas compared with high house price areas (though more work is needed to verify whether this is a genuine effect or the result of non-constant error variance caused by variations in the number of observations in each geographical unit).

Figure 5 Greater Spectrum of Price Appreciation for Low House Price Areas



Even if poor and rich areas have the same mean trajectory, there may be greater volatility for a given trajectory (as in Figure 6) particularly if repossessions during slumps are concentrated in poor areas.

Figure 6: Does Spatial Clustering of Repossessions Lead to Asymmetric House Price Volatility?



(iii) Higher costs of borrowing?

A spike in repossessions will lead to impaired credit ratings for large numbers of people. This in turn will lead to higher costs of borrowing for these individuals for many years to come. Differentials in borrowing costs will further exacerbate the asymmetries in relative returns to home ownership across different social groups.

These three arguments: that a volatile repossession cycle may reduce the benefits of homeownership for low-income households relative to wealthier households by:

- (i) increasing the Negative ratchet effects for the poor;
- (ii) lead to a less favourable risk/return trade-off; and
- (iii) lead to higher costs of borrowing for the poor.

add further weight to the case for dampening the amplitude of the repossessions cycle.

Destabilising Effect on Financial Institutions

Probably more important than any of these effects, however, at least in the short to medium term, is the risk that a significant rise in repossessions could further destabilize the UK banking system. The current credit crunch has arisen because of a crisis in the US subprime sector that became apparent around two years ago which subsequently revealed and exacerbated fragilities in the entire world financial system. If repossessions rise significantly (and there is a chance they will) we could end up with a second round to the credit crunch in the UK, this time of our own making, and see further bank failures/rescues ensuing. This could prolong and deepen the recession. Significant intervention to minimize the increase in mortgage repossession is justified to reduce the risk of financial destabilization.

3. What should the government do?

The focus should be on bailing out mortgage borrowers rather than bailing out the banks directly. If mortgage borrowers are protected, then this in itself will stabilize the banks.

ISMI and its limitations:

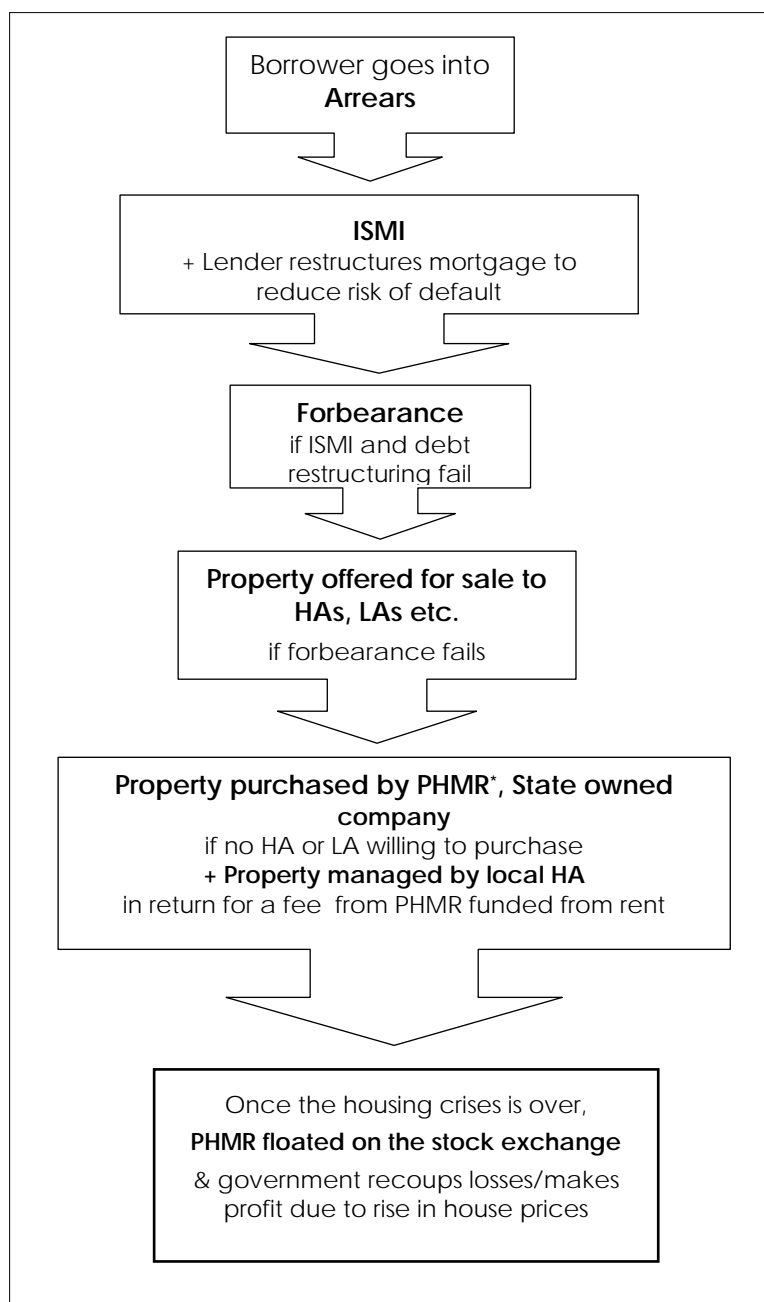
Returning ISMI its pre-1987 as a temporary measure (both in terms of reducing the waiting period, and in terms of paying full interest incurred rather than a standard rate) would fit with this view, though it should be seen as a necessary but not sufficient condition for rescuing the mortgage sector. ISMI alone will not be enough because many of those at risk will not be eligible for income support, ISMI only covers interest payments (it does not cover amortization), and borrowers may have accumulated huge unsecured debts (credit card debt) not covered by ISMI. So banks may still repossess even if someone is on a fully restored ISMI system.

Expand Mortgage to Rent

We would advocate a significant extension of Mortgage to Rent Schemes, perhaps by setting up a national state-owned company (called *Property Holdings for Mortgage to Rent*– PHMR – for sake of argument) to purchase properties, but to pay local letting agencies, housing companies and Housing Associations to manage the tenancies. This might be a way of getting round one of the limitations of current schemes: i.e. that housing associations (HAs) will only take on a foreclosed property if it fits with their long term investment strategy. By separating the ownership and management functions, a more rapid expansion of the scheme could be achieved. PHMR could be developed as a Real Estate Investment Trust so that, once the crisis is over, this state owned national company PHMR could be sold on the stock exchange to recover costs (in the spirit of the Resolution Trust Corporation¹ set up as a way of helping to resolve to the US Savings and Loans Crisis).

The process implied by this suggestion is depicted graphically in Figure 7 below. Note that Local Authorities and Housing Associations would be offered first refusal on the purchase of these properties – PHMR acts as purchaser of last resort.

¹ Resolution Trust Corporation (RTC) was set up to help liquidate failing Savings and Loans (S&L) companies (the US equivalents of UK Buildings Societies) in the early 1990s. Mortgage loans and other assets were transferred from the bankrupt S&Ls to the RTC and then sold on at relatively modest net overall costs to the taxpayer. See Davison (2005) and Economist (2008) for more details.

Figure 7: Extending Mortgage to Rent

* PHMR = Property Holdings for Mortgage to Rent— national state-owned, state-financed, set up to purchase properties owned by mortgage borrowers who would otherwise default, and which have been declined by HAs and LAs.

Reforming Mark-to-Market: Breaking the Downward Spiral

Government needs to be aware of the incentives implied to lenders of falling house prices. If prices are expected to continue falling for a prolonged period, lenders have an incentive to speed the repossession process to minimize losses on resale.

The situation is made significantly worse by ‘*The Paradox of Deleveraging*’ (McCulley 2008): the tightening of loan criteria by lenders causes an initial inward shift of the demand for housing, and prices fall. But this has 2nd and 3rd round effects. The fall in prices caused by the stricter loan criteria mean that the value of the collateral underpinning lender balance sheets falls, so leveraging actually rises. Even stricter loan criteria are then imposed in an attempt to deleverage. And so the downward spiral continues.

Central to this vicious circle is the use of the Mark-to-Market method of asset valuation. Tying lender balance sheets to current prices is destabilizing because house prices can overshoot – they deviate from their fundamental ‘true’ value. As Levin (2008) argues:

‘Macroeconomic instability occurs when all banks are obliged to sell their assets at the same time in order to restore their liquidity and maintain their solvency. Simultaneous action of this nature reduces the market price of assets, which in turn further destroys banks’ equity. As a result, banks are forced to sell even more assets and restrict lending, causing a systemic downwards spiral in stock prices and house prices. Private investors, observing the trend, join in as they likewise seek to limit their losses. This downward spiral leads to negative asset price bubbles in both the stock market and the house market. But stocks and mortgages hold real value that may be undervalued as market prices are driven below fundamental values in the general rush to liquidate assets during a period when no-one is willing “to catch a falling knife”... (Levin 2008, p.2)

Mark-to-market based valuation of banks’ assets declined in 2008 because the market was illiquid, and markets were illiquid because banks’ assets on marking-to-market valuation were falling. A vicious circle associated with marking-to-market exacerbated the asset valuation problem initially triggered by a downturn in the housing market caused by sub-prime lending and excessive leverage. The downward spiral of asset values based on marking-to-market transformed the 2008 banking liquidity crisis into a crisis of uncertainty as to how to distinguish between banks facing problems of insolvency rather than liquidity.’ (Levin 2008, p.4)

Instability increases the incentives for lenders to jettison apparently bad debt, putting added pressure to raise foreclosure rates. Unless the instability implied by the current mark-to-market rules are addressed, any intervention by government could be akin to swimming against the tide.

We suggest, therefore, urgent revision of the mark-to-market system. It would be far better that banks use as their measure of the current value of collateral a gauge that is based on the *fundamental* asset value of housing, rather than the current trading value. Levin (2008) proposes an extension of the accepted bench-mark user cost approach to house valuation that incorporates expected house price appreciation as an endogenous variable.

Encourage the Development of Financial Contracts that will oil the wheels of housing market recovery.

Kaivanto et al (2008) have proposed the use of financial innovations to help break a second type of downward spiral – one that arises due to loss aversion. The following is based on/taken from that proposal.

Kaivanto et al (2008) argue that the reduced volume of transactions currently being witnessed in the housing market can partly be attributed to a failure in the current set of financial products to address asymmetries between buyers and sellers in future returns.

‘House owners (mortgage payers) resist lowering nominal asking and closing prices, and they resist realising a net financial loss, i.e. they resist locking into a negative equity position

One driver of this asymmetry is the belief that the housing market will recover from the current downswing. However in the terminology of behavioural economics house owners also display *the disposition effect*, whereby they persist in holding on to loss-making positions for too long. This is due to both:

1. the unwillingness to realise or ‘lock into’ losses or negative equity (people are *loss averse*); and
2. the belief that house prices will ‘recover soon’ and that by just holding on a bit longer the whole situation will turn right (people are subject to *the local representativeness effect* and *the gambler’s fallacy* whereby they expect a reversal to occur in their favour sooner than justified on purely objective grounds).’ (p.3)

In principle it should be possible to devise contracts that require no ‘subsidy’ from either government or lenders, but which are attractive to the prospective buyers and sellers because they unlock a zone of possible agreement, to be shared fairly between the contracting parties, by the introduction of risk sharing between the buyer and seller.

One obvious means of achieving this would be to devise a contract that allows sellers to concede a lower immediate closing price in exchange for a fair division of the proceeds of the property’s subsequent price development with the buyer.

There is good reason to expect that such ‘risk sharing contracts’ could relax the asymmetry in house price flexibility as well as increase volume and liquidity in housing markets.

Such contracts could, for instance, be made available to mortgage holders who are in arrears, but are holding on in the hope of not locking into negative equity. Under such a contract, even though the property were placed on the market ‘priced to sell’ in the current climate, the seller would subsequently recoup, say, two years hence an amount equal to one-half of the difference between the market value of the property and the previously agreed closing price. This would allow the financially vulnerable homeowner to avoid repossession and the associated impaired credit rating.

Buyers, on the other hand, would benefit under this contract structure from (a) the availability of a mortgage given this arrangement, and (b) a lower closing price for the property than in the absence of this contract form.

The 50%–50% split between buyer and seller is potentially important insofar as it is the touchstone of ‘fairness’ in contracting, and therefore crucial to unlocking the barriers to acceptance of such a ‘new’ and unfamiliar contract.

There are numerous ways in which such a contract might be designed and implemented in practice. One possibility might be to ‘roll it into’ the mortgage contract. For practical implementation it would be necessary to develop this collaboratively with a mortgage lender. As a working concept, however, we believe that the risk sharing element would technically need to be implemented by making reference to a property price index. This would eliminate the natural concern for possible moral hazard – i.e. the new owner not taking due care of the property with the consequence of diminished value. It would also permit a structure whereby the closing price includes an amount with which a two-year option is purchased on the property index, the proceeds of which, when the option is exercised two years hence, are disbursed to the seller. With this implementation, the buyer does not face uncertainty in the principal (and the affordability) of her mortgage.

For the mortgage lender, a distinct business case can be made for developing risk sharing mortgage contracts. Firstly, this contract form can be a source of competitive advantage to the first mover mortgage lender(s) insofar as house sellers and buyers find the contract attractive. Moreover, insofar as risk sharing mortgage contracts can improve liquidity in the housing market and reduce the number of repossessions, the risk of a dramatic collapse of the housing market is reduced and thereby the value of mortgage lenders’ mortgage books (or securitisations thereof) are enhanced and rendered less fragile.

Similar proposals are currently being considered by the Federal Housing Association in the USA in an attempt to restore liquidity to the American mortgage market (see Ross, 2008).

4. Conclusions

Following from the preceding discussion, the following actions should be encouraged by the government:

- Lenders should be encouraged to practice greater forbearance, particularly for ISMI claimants.
- A mortgage to rent scheme should be extended by establishing a state corporation, the Property Holdings for Mortgage to Rent (PHMR) to act as purchaser of last resort.
- A requirement should be introduced for lenders not to repossess properties until housing associations, local authorities and the proposed PHMR state corporation have had the opportunity to purchase, possibly at discounted rates.

- There should be a shift away from valuing lenders assets at current market prices ('mark-to-market') and towards prices that are based on their more stable underlying value (Levin 2008).
- Lenders should co-operate with government on exploring the development of financial products to kick-start the market.

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