

**Joint Center for Housing Studies  
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**Identifying, Managing and Mitigating Risks to Borrowers in  
Changing Mortgage and Consumer Credit Markets**

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## **I. Introduction: The Changing Face of Debt**

Household balance sheets have become increasingly leveraged over the past two decades and the trend has accelerated since 2000. The ratio of total household liabilities to total assets in the U.S. has increased 35 percent since 1987 with half the increase coming in the last five years. The character of household debt has changed markedly during the same period. Credit has been made available to a wider pool of borrowers; loan terms and underwriting standards have been liberalized; and credit is increasingly risk-based with less rationing. An increasing percentage of debts are secured and most of the added collateral is housing. These trends are common to the “homeownership societies” of North America, Europe, and Australia.

This increase in secured loans has been caused by a number of factors. First and foremost is the large increase in the value of housing assets in recent years, which has loosened collateral constraints on borrowing. Second, secured loans carry a lower interest rate than unsecured loans, so there has been an incentive to consolidate borrowing into mortgages. Third, in some countries mortgage interest payments are – in whole or in part – tax deductible (in the US, for example, mortgage interest is the only form of consumer interest that is tax deductible since 1986). Finally, the development of a broader asset-backed securities market has increased the liquidity of mortgages.

This paper concentrates on the management and mitigation of mortgage risks: the kind of credit risks that face the majority of indebted households. For several decades now both the US and UK governments have sought to extend home purchase ‘down market,’ encouraging and indeed requiring lenders (for example in the US via the Community Reinvestment Act (1970) and the Home Mortgage Disclosure Act) to extend secured credit to previously ‘under-served’ areas in order to build an asset-base for welfare (Case and Marynchenko 2004). At the same time, lenders and governments have encouraged both higher and lower income households to use mortgages to secure borrowing for all kinds of purchases, including those required to meet basic welfare needs (Smith 2005).

There are some advantages to borrowers of these trends. Mortgages have turned housing into the only leveraged tax-advantaged investment that is widely available to the public, and the resulting wealth has become central to households’ asset accumulation. In some jurisdictions, such as the UK, mortgage lending is more tightly regulated than other forms of credit; and home price appreciation is often tax-advantaged. On the other hand, mortgages are very large loans

which provide a gateway to essential housing services as well as a lever for investment returns and a potential source of lower cost financing. So the costs of default can be high, putting family homes at risk even if missed payments relate – in practice – to secured loans that were used to fund health care or holidays.

Although the landscape of risk facing both lenders and borrowers of all kinds has radically changed in the last quarter century, the options for protecting borrowers have been pursued much less vigorously than have strategies to support lenders (though, as the subprime crisis shows even here the solutions have been partial). This paper thus sets out the key risks for borrowers, and identifies some possibilities for managing and mitigating them. To this end, there are three main sections. Each of them flags trends or takes examples from the US and the UK – countries where households' experiences of wealth accumulation and indebtedness are mediated by a style of owner occupation that is supported by mortgage finance.

First, we set the scene by discussing trends in housing wealth, mortgage debt and other consumer credit. Second, we review the risks associated with the changing character of households' debt. We divide these risks into: systemic risks, which are embedded in the wider economic environment, and so affect large numbers of people and areas simultaneously; and individual risks that may be widespread but are the less predictable result of biographical disruptions including relationship breakdown, adverse health events, or accidental death or injury to, or disablement of, a main wage-earner.

We then turn to a discussion of the options for mitigating risk. Here we make a distinction between “traditional” approaches – which include a range of state and market-style insurances (in which risks are pooled and premiums paid from income streams which are occasionally priced to reflect people's ability to pay but are more often priced to reflect the likelihood of claiming) and solutions that make use of “new” financial instruments. More correctly, these latter solutions are about extending to ordinary households a generation of financial instruments which are commonly used by financial market to widen the gains, and by large institutions to spread the risks, of the performance of a wide range of assets and debts. It could be argued that these instruments (in so far as they have been used to manage housing debt) partly underpin the ‘credit crunch’ that has destabilized the banking sector over the past year. However this paper considers whether, as tools for managing the housing equity side of the equation, they may equally be used to protect households from some of the fallout.

## **II. Housing Wealth and Mortgage Debt**

Sustained price appreciation across almost a decade has turned housing into a major store of wealth, particularly in the English speaking world (Belsky and Prakken 2004; Di et al. 2003; Muellbauer, in press; Smith 2006; Berry 2006). In the US, for example, in the second quarter of 2007, household assets totaled \$71.7 trillion, of which direct holdings of real estate accounted for \$21.0 trillion or just under 30 percent (Flow of Funds Table B100, Federal Reserve Board of Governors). The figure is even higher than this for the UK, where housing accounts for 43 percent of households' total assets today, compared with 28 percent in 1996. In both jurisdictions, moreover, the drift is away from that other staple of households' wealth portfolios, pensions, in favor of further consolidation of wealth into home equity. In the US, in 1997, household holdings of real estate assets were just 16 percent higher than household pension fund reserves; today they are 66 percent higher. Likewise in the UK, as investment into housing is increasing, so savings into pensions are falling. So housing wealth is both a key component of retirement saving and, as we shall see, a resource that is brought increasingly into play across the whole of the life course.

The increased importance of housing in these countries is the result of both appreciation in the value of land and a surge of capital investment. Between 2000 and 2005, a period of low inflation, the total value of residential real estate in the U.S. increased by \$10 trillion (a 68 percent increase), with land accounting for about half of that total (see Case, 2007). In all, housing values in the United States have tripled since 1987, while prices in general have only increased by 80 percent (see Macromarkets.com S&P Case Shiller indexes). In the UK, between 2000 and 2004, prices rose by 60 percent; even in the long run – since 1971 – the UK has (with Spain) regularly topped the OECD league table for annual house price hikes (Smith 2006). Across this whole period, moreover, housing has performed well relative to other assets. These increases mean that housing is both the most widely distributed of all financial assets, and the major component of wealth for the majority of households. Indeed, in both countries there is evidence that the distribution of housing wealth to some extent evens up the distribution of all wealth. Smith (2005) sets out the position for the UK; data presented in Case and Marynchenko (2002), document the US experience, showing, for example, that among low income households, homeownership was an excellent vehicle for wealth accumulation in Chicago for at least two

decades, whereas homeowners who bought in Los Angeles in 1991 suffered losses in wealth and say a tendency to “negative equity” by 1995.

Housing wealth is, nevertheless, unevenly distributed across both the US and the UK. The bulk of the increase in the US during the recent period of growth was, for example, concentrated on the West Coast and the Northeast, where seven states currently account for 47 percent of total home value: California alone accounts for nearly a quarter of this total (Case, 2007). In the UK, too, there is evidence that differential house price appreciation (reflecting differences in the desirability of locations or neighborhoods, as well as variability in the character, condition and quality of the stock) helps exacerbate other kinds of inequality. Thomas & Dorling (2004), for example, show that between 1993 and 2003, the housing wealth of the ‘best off’ ten percent of areas in the UK rose ten times more than that in the ‘worst off’ ten per cent. As a result the ten per cent of children who (as a consequence of their parents’ housing attainment) are the most housing-asset-rich have seven times more housing wealth at their disposal as the least wealthy ten per cent.

More notable still is the changing character of secured borrowing, which has turned housingwealth from a fixed asset into a spendable resource. With a mortgage at the interface, and credit constraints eased by historically low interest rates together with loan securitization, housing wealth is more fungible now than it has ever been before, and borrowers are taking advantage of this. Whether by refinancing or, increasingly commonly, by drawing routinely up to pre-agreed borrowing levels (Smith et al. 2002), housing ‘wealth effects’ (which are more marked and occur with greater speed than stock market or other financial wealth effects) are increasingly well documented, and have been credited with keeping the more developed economies afloat even through periods of recession (Benjamin et al. 2004; Case, Quigley and Schiller 2005; Deep and Domanski 2002; Lantz and Sarte 2001). These ‘effects’ have also, of course, driven the industry to adverse credit mortgages, accelerated the shift to subprime borrowing and encouraged the growth of predatory lending (Langley 2007; Munro et al. 2005; Pannell 2006), involving products which are not only aimed to extend homeownership ‘downmarket’ but come packaged with inducements (lower overall loan repayments for example) to borrowers to secure all their loans against property.

Housing is of course leveraged and that leverage has increased. In 1987, homeowners’ equity in the U.S. accounted for two-thirds of the total value of residential real estate. In 2007,

the figure is just over half, 52 percent (see Flow of Funds Table B100). In the 2<sup>nd</sup> quarter of 2007, households had direct mortgage liabilities of just over \$10 trillion, while consumer credit outstanding totaled another \$2.4 trillion. At the same time in the UK, there is about £3.6 trillion of housing assets compared with £1.2 trillion of mortgage debt. Overall, in the decade 1992-2002 the debt required to finance owner occupation, including the non-housing debt secured against it, doubled for the UK (Mintel 2004) rising from 56 percent to 64 percent of GDP (Catte et al., 2004). Though other estimates are a little lower – around 60 percent of GDP – British mortgage debt is one of the highest in the developed world, exceeded only by Denmark (74percent) and the Netherlands (79percent). Not surprisingly, mortgages account for the majority of household debt in the UK and owners are far more indebted than renters (May et al., 2004). Furthermore, aggregate levels of secured debt relative to income have tripled since 1980 (Hamilton 2003), rising from 95 percent to 125 percent of post-tax income in the five years to 2004 (Hancock and Wood, 2004). In a setting where the average house price to earnings ratio is now 5.7, exceeding its 1980s peak, mortgage debt has come to account for three quarters of UK households' total interest-bearing liabilities (HM Treasury, 2003).

Moreover, as well as having loans secured against their home, owners have the possibility (because home ownership comes with such a high credit weighting in the United Kingdom) to engage in a wider range of unsecured borrowings than renters (and some mortgages come with an unsecured top up taking borrowers over the 100percent loan-to-value maximum). In the UK, owners are twice as likely as renters to have a credit or charge card, for example, and more likely to have borrowings against any cards they do have (Bridges et al., 2004). They are also more likely to have unsecured personal loans of other kinds. Home ownership thus enhances the possibility for households to acquire unsecured debt, and one of the risks this brings is 'debt overhang' – where total borrowings exceed the value of all assets, including those in housing.

### **III. Round Up of Risks**

In economies driven more by credit than cash, both lenders and borrowers have become vulnerable to the risks of default. Lenders have, in theory, been well-protected. They may make credit contingent on borrowers themselves "insuring" the lender (either by charging more for risky or – in the case of mortgages, high loan-to-value – loans, or by packaging a mandatory insurance into the loan). They may reduce their exposure to risk by selling off parts of their loan

book in the form of mortgage-backed securities. Or they may hedge their exposures by using credit derivatives (though these do not seem to have worked effectively for those drawn into the current sub-prime crisis). Borrowers, however, are also vulnerable to a range of risks which may either raise the cost of their loan (payment reset risks), depress the income stream they are relying on to service repayments (income shocks), place additional demands on their earnings and savings (budget shocks) or eat into the assets (or investment vehicles) they may depend on to clear the loan in the medium or long term (investment or equity risks). There are a number of ways of organizing discussions around these risks, but we have chosen one which differentiates those risks which are systemic (both a product of, and an influence on, the dynamics of the economy as a whole) and those which arise from a range of biographical disruptions which interact with, but occur irrespective of, wider economic trends. Of course, there is no hard line between these micro- and macro- effects, but one reason for making this distinction is that it is helpful when considering methods of, and options for, risk mitigation.

### **Systemic Risks**

A first key systemic risk for borrowers is the *payment reset risk posed by rising interest rates*. The affordability of any loan is linked to the rate of interest attached to repayments. Most unsecured loans charge fixed interest over a specified (short) period. Part of the drift from unsecured to secured borrowing is prompted simply by the fact that even the most expensive secured loans tend to have lower interest rates than their unsecured counterparts. Many mortgages however charge interest at a variable rate from the start, or are fixed for a short period (often, as an inducement to borrow) below base rates, and then opened to the market rate (sometimes with a lock-in period for borrowers who took advantage of the introductory deal). So the more loans consolidate against housing, the more vulnerable borrowers are to interest rate fluctuations. This true in the UK, where a widespread preference for variable rate loans (an average of 65 percent of mortgages held between 2000 and 2002 were of this type) makes borrowers there uniquely vulnerable to short-term fluctuations in interest rates (Miles, 2004). It is also true in the US, where the ‘down-market’ extension of home ownership was built almost entirely on the low entry costs enabled by the presumption of long term low interest rate, and where, paradoxically there has also been a push towards variable rate loans (prompted, not least, by the point Alan Greenspan argued in 2004 when he observed that ‘many homeowners might

have saved tens of thousands of dollars had they held adjustable-rate mortgages, rather than fixed-rate mortgages, in the last decade’.

Low interest rates have been a hallmark of the mortgage market for almost a decade. In the UK for example, interest rates averaged 5 percent between 2000 and 2004, in contrast to 7 percent in the 1990s and 11 percent in the 1970s and 1980s. In the US, rates plummeted from a high of almost 23 percent in 1981 to a low of closer to 5 percent in 2003 (and conventional mortgage rates have fallen from a millennial peak of 8.6% in May 2000 to a low of 5.2% in June 2003).<sup>1</sup> Where high levels of borrowing have adjusted to these rates (assisted in the US by a process of securitization which extended funds to a wider range of ‘subprime’ borrowers), the sustainability of repayments depends on their stability. However, this is increasingly in question. Between June 2003 and September 2007 in the US, interest rates rose, new borrowing dropped, and refinancing began to mean much higher monthly outlays for borrowers. This is the root of the recent subprime panic, which has itself generated a wave of systemic consequences.<sup>2</sup> Likewise a number of studies suggest that even small interest rate hikes could trigger substantial repayment difficulties in the UK, a point underlined in the modeling exercises reported in Miles (2004), which show the sensitivity of mortgage arrears and repossessions to rising interest rate.

*A second systemic risk relates to income shocks.* The economies of the more developed world have been adjusting for some years to high rates of employment. This generates the steady streams of income that mortgage borrowing, in particular, depends on for its sustainability. There is currently less concern about employment risks than about interest rates and in the UK, and much of the USA, the outlook seems robust. Employment, like incomes, is nevertheless polarized, and lower income groups have least job security. Given the oft-quoted truism that owner occupation in the ‘home ownership’ societies accommodates half the poor as well as all

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<sup>1</sup> A major reason for such low interest rates is that the world has been “awash” in liquidity, having generated a massive volume of saving during the last 10-15 years. Much of that saving found its way to American securities markets simply because of the sheer volume of trade and perception of safety. Countries with large foreign trade surpluses must do something to balance their payments in foreign exchange markets (see Richard Cooper: Living with Global Imbalances), so many countries have substantial accumulations of dollars and dollar denominated assets, and a substantial volume of non-US money is now used to purchase Treasury’s and even into Agency securities. China owns about \$350 billion of U.S. sovereign debt and Japan owns about \$650 billion, In short, massive liquidity from abroad, domestic pension funds, insurance companies, college and university endowments and foundation portfolios all held down rates and reduced spreads as the world competed for every last basis point.

<sup>2</sup> A subprime ripple (whose direct costs add up to a fraction of the size of the bond market, for example) made waves across the world’s banking and finance markets for a complex set of reasons linked to the growing complexity of mortgages instruments, the increasingly complex risk-sharing arrangements that have never been tested in a volatile market-place, and possible mis-pricing in the MBS market.

the rich, any contraction of the job market is risky for the sustainability of mortgage repayments on the (rather large) margins of the sector.

Income shocks can, however, themselves be triggered by the changing fortunes of the housing economy. When existing home sales decline or prices fall, the economy experiences a decline in aggregate expenditure and ultimately a reduction in employment. This occurs through several distinct channels.

First, there is the risk of a change in the effect of housing wealth on consumption. When households accumulate assets, they tend to spend more than they otherwise would have, either by withdrawing equity from those assets or by saving less in other forms. While there is some evidence that spending patterns does not immediately respond to declines in home value – that the effect is asymmetric – this may only be true until a particular threshold is exceeded (see Case Shiller and Quigley, 2006; Smith and Searle 2008). So when household asset values generally, and house prices in particular, fall, this may, sooner or later, lead to a contraction in consumer spending, prompting a fall in profits and a loss of employment in the affected sectors.

Second, fewer sales of existing homes means that brokers, building inspectors, appraisers, mortgage lenders, home appliance firms, and others in the real estate industry face a decline in demand and experience a direct loss of income. While the sale of an existing dwelling unit is simply a transfer or exchange of assets (and thus is not a component of National Income), the transactions costs associated with the exchange are high; the transfer typically induces spending on furniture, appliances, decorating, and so forth, but also fees generated by brokers, lenders, appraisers, and others.

But without doubt, the third and biggest direct effect is likely to result from the decline in new housing construction. The US construction industry alone employs 7.5 million workers, and in the beginning of 2006 new investment in residential structures was at an annual rate of over \$800 billion, or about 5.6 percent of GDP (U.S. Department of Commerce, Bureau of Economic Analysis, NIPA Accounts.) By September 2007, housing starts had fallen to an annual rate of 1,190,000 from a peak of 2,265,000 in February 2006 (U.S. Census Bureau, Construction Reports). This decline of over a million suggests a substantial direct impact.

Furthermore, even (perhaps especially) in a benign economic climate – even if unemployment and interest rates both stay relatively low – highly indebted borrowers remain vulnerable to the financial consequences of biographical disruptions of all kind (as documented

below). These include family relationship breakdowns, ill-health and premature death of a mortgagor, against which, so far, neither state nor private safety nets offer a comprehensive protection package (Easterlow and Smith, 2004; Ford et al., 2003). In these events in the short term, and in many other cases in the long run, borrowers may be vulnerable to a third systemic risk: to factors affecting the value of (housing) assets which they might otherwise wish to tap into to clear their debts or tide them over repayment difficulties.

*A third systematic risk for borrowers* thus effectively relates to house prices – or at least to the *investment risk* embedded in house price volatility. Property values are key to the sustainability of current levels of consumer debt, not just because the loans they secure are related to the value they hold, but because they represent the major portion of most households' wealth portfolio. Moreover, while housing has historically shared this role with pensions, recent years have seen a marked shift in the balance towards housing, especially among the younger age cohorts. And of course, housing is the only one of these resources which can be cashed in early, by selling up or trading down. A recent study in the UK has underlined the importance of property values for households wealth and wider wellbeing, showing the extent to which borrowers now look to the wealth in their homes as a financial buffer and a welfare resource (Smith et al. 2007). So it is perhaps not surprising that, in recent years, price volatility has become as much of a buzzword as sustainability where housing debt is concerned not least because of its consequences for consumer protection in the mortgage market (Hilbers et al., 2001; Laslett et al., 2001). If house prices stagnate or decline, as they tend to when rising interest rates rule out cost-effective refinance and propel a wave of sales and repossession (see Case and Shiller 1996), then the one resource home buyers look to for financial security – their home – is at risk: they stand to lose both the asset and the housing service it contains.

### **Individual Risks**

Debtors face a number of risks that can strike them individually and compromise their ability to repay their debts, and which have little to do with systemic risks that involuntarily and simultaneously hit large numbers of people (such as regional or national recessions, regional or national house price declines, or national increases in interest rates). Individual risks include events that disrupt incomes, such as the death or disability of an earner, divorce, and job loss or curtailment of hours. They also include unforeseen events that shock budgets such as large and

uninsured (or not fully insured) medical expenses, large home repairs, and debt payment shocks. Furthermore, the influence of more systemic risks on individuals depends importantly and predictably on their individual attributes. For example, whether or not an increase in interest rates has any impact on an individual, as well as the magnitude of any impact, is governed by how much debt that individual holds, how much of that debt is adjustable, how large a teaser rate was initially offered on how large a portion of the debt, and whether the debt has any other features that can trigger a repayment shock, such as a fixed interest-only period. Similarly, younger and minority workers have higher unemployment rates and greater rates of job separation so are at higher risk of an income shock. They also are less likely to have health insurance and so are more vulnerable to budget shocks.

Individuals are also exposed to investment risk when they use debt to secure an asset such as a home. In this case, while individuals are exposed to systemic risks like the end of a speculative bubble, they are also exposed to the risk that the balance between supply and demand for homes of the types they purchased in the locations they purchased them shifts in a way that erodes the value of their home. This occurs when the home becomes functionally obsolete or a neighborhood falls into decline. Households are also exposed to risks that their neighbors will default or disinvest in nearby homes, thereby reducing the value of their own home. Borrowers are almost never now themselves insured against this risk of loss of value, although the lender demands the borrower pay insurance that indemnifies the lenders. An additional investment risk is that home will be damaged by accident or natural disaster. This risk is typically insured by property insurance policies, although these increasingly come with exclusions.

Modelers of mortgage loan terminations (both mortgage prepayments and defaults) have long been interested in these individual risks and considered how to take them into account in risk-based pricing and underwriting. These risks are often referred to as trigger events (Vandell 1995; Elmer and Seelig 1998). To the extent that these events are predictable and correlated with individual borrower attributes, it is possible not only to price and make underwriting decisions based on them, but also to take more borrower attributes into account in making these decisions.

Insuring against certain risks is exceptionally difficult because the insured can engage in risk-seeking behavior, game the insurer, or because only the riskiest apply (adverse selection). An example of risk-seeking behavior is the impact of offering unemployment insurance. This can, on the one hand, protect those on the periphery of the labor market from mortgage default

‘between jobs’; on the other hand it might encourage people to risk changing jobs too frequently perhaps putting themselves at risk of ‘last in, first out’ penalties which – because they are beyond individuals’ control – might have to be picked up by the insurer. An example of taking advantage of the insurer is divorce. If insured for divorce, individuals can file for a divorce in order to get out of their debt obligations. An example of adverse selection is that only those in occupations most apt to result in disability will purchase disability insurance, making it impossible to price the insurance for less than the principal amount. Thus, in cases with a high degree of moral hazard risk, insurance products simply are not offered. However, Shiller (2003) has argued that the range of these circumstances are defined more narrowly than they need to be – a point we return to later.

#### **IV. Risk Mitigation**

Risk mitigation for indebted consumers in societies where so much borrowing is stacked against property – that is, against people’s homes – generally depends on some kind of partnership between states, markets and borrowers. However, over the last two decades, countries have retreated from direct mitigation (for example the rules for using taxation to meet interest payments for unemployed mortgagors in the United Kingdom are now very narrowly drawn), encouraging market based insurance providers to take their place. Old partnerships have thus dissolved and the principle of solidarity has been replaced by one of mutuality, as well as by other kinds of private safety net (such as debt cancellation and suspension contracts, third-party guarantees, and overcollateralization of loan pools). The question we address here is whether the existing suite of safety nets is, or could be sufficient; or whether an alternative style of partnership might be more effective.

#### **Traditional Methods: Consumer Credit Insurance, Loan Payment Protection Insurance, and Debt Cancellation Products**

Most risks associated with lending are managed by lenders, not consumers. Furthermore, the methods used to manage these risks protect lenders, not borrowers, against credit risk, interest risk, liquidity risk, and prepayment risk.<sup>3</sup> Borrowers pay for this protection through the

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<sup>3</sup> It is notable, for example, that unlike in the United States, in the United Kingdom the term ‘credit insurance’ refers almost exclusively to a trade service – to schemes designed to protect business interests against customer default and non-payment of debts incurred against a range of goods and services.

interest rates and fees they are charged and by the way these are adjusted based on the characteristics of the borrower and the loan product. In some cases, as for example with mortgage lending, lenders are also protected against loss in market value of the collateral through mandatory insurance charged to the borrower. While consumers can protect themselves against some risks through options embedded in their product terms (such as fixed rate loans that insulate them from interest rate risk), with few exceptions the only products that explicitly protect the consumer instead of the lender in the United States are credit insurance and debt cancellation contracts or debt suspension products.<sup>4</sup> In the United Kingdom there is a complex array of loan payment protection insurances for borrowers to cover mortgages, unsecured loans and credit card debts, as well as a range of insurances to cover loss of income through accident, sickness and unemployment. This suite of “loan payment protection insurances” spans the kinds of products that in the United States are referred to as credit insurance, debt cancellation, and debt suspension. While the focus here is on the United States, some parallels to the United Kingdom are drawn below. This is worthwhile, not least because, despite the very different regulatory regimes in each country, the shortcomings of credit insurance and loan payment protection insurance are quite similar, and stand in puzzling contrast to generally high levels of satisfaction with the products among those who purchase them.

In the United States, credit insurance is offered by insurance companies and marketed (as is the majority of loan payment protection in the UK) through lenders that act as brokers at the point of sale. Often, the lender itself uses a broker that both takes the application for the loan and sells the consumer durable (automobile, home, furniture, etc.) being financed. Debt cancellation and debt suspension is offered by banks at the point of sale of credit for consumer durable purchase or credit card debt.

Credit insurance, loan payment protection insurance, and debt cancellation/suspension are of potential real value to consumers because failure to repay debts results in higher future borrowing costs and future restricted access to credit. By indemnifying lenders on behalf of consumers, events that would otherwise have triggered a default are averted. Moral hazard

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<sup>4</sup> There are, of course, some exceptions that prove the rule. Fannie Mae has offered products that protect mortgagors from large home repairs or the kinds of events, like layoffs or disability, that are covered by credit insurers and lenders offering debt cancellation products. But the penetration of these products is very low. Robert Shiller (2003) lists several small scale efforts to insure consumers, including against loss of home equity through “home equity assurance” in Chicago in the late 1970s and a program in Syracuse in the late 1990s. Another product he discusses is Yale’s Tuition Postponement Option of 1971-1978 which calculated payments based on a fixed percentage of future annual income. As a result, higher income students would pay more than lower income students.

concerns restrict the range of events covered by these products mostly to those over which the consumer has limited or no direct control.<sup>5</sup> In addition, events whose occurrences are independently verifiable are favored so that insurers can avoid consumer fraud. The most common events covered are death, disability, and involuntary unemployment as a result of a layoff. Events that also compromise the capacity of an individual or household to repay its debts permanently or for some period of time that are more voluntary in nature, such as separation or divorce, are seldom covered for the reasons described above, even though these are some of the main causes of financial difficulty feeding into payment default. Even so, insurers are vulnerable to adverse selection and must price their products to cover that risk. For example, some argue that those who anticipate a health problem or work in an occupation more prone to injury are more apt to purchase credit insurance or debt cancellation than others. As noted above, carrying such insurance can also lead consumers to engage in risk-seeking behavior since one of the consequences of a reduction in income is neutralized. The most recent work on mortgage payment protection insurances in the UK found no evidence of either adverse selection or risk taking (Ford et al. 2003), and few believe that people will intentionally take an action that will result in death or disability just to avoid paying off bills. Nevertheless insurers concern themselves with such possibilities, and this is reflected in pricing practices.

Surprisingly little information exists about insurance and cancellation products that protect consumers, and few analyses of these products exist in the public domain. There is more information on credit insurance largely because past concerns with the product, and—more to the point—questions relating to how it was priced and marketed, led to statutorily required disclosures as well as federal data collection on the use of credit insurance. Indeed, by the time the Truth in Lending Act became law in 1968, a long and controversial enough history had developed with the product that a special carve out was made for credit insurance.<sup>6</sup> Debt cancellation is a newer product made possible by an Office of the Comptroller Currency ruling that national banks could offer it and that it did not constitute an insurance product. Apart from the OCC which regulates debt cancellation products, the banks that offer them, the lawyers that

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<sup>5</sup> The most noteworthy of these are coverage of family leave by all tradition products and the use of debt suspension agreements in the case of childbirth or child's education over which individuals most certainly have control.

<sup>6</sup> For a history of credit insurance see Fagg (2004). It can be dated back the Morris Plan in 1910 which developed into several Morris Plan Banks and culminated with the opening of the Springfield Morris Plan Company in 1926.

work for these banks, and some consumer advocacy organizations that have looked into the issue, not much attention has been paid to these products.

### ***Credit insurance and Loan Payment Protection***

First, we explore credit insurance and loan payment protection approaches to mitigating the risks of consumers.

***Nature of credit insurance:*** Credit insurance in the United States covers a range of credit products, including credit cards, installment loans, mortgages, second mortgages, home equity lines of credit, and credit cards. A variety of different events are covered including death (through credit life), accident and health (through credit disability), unemployment (through credit involuntary unemployment), and repair or replacement of personal property (through credit property insurance).<sup>7</sup> The products are often bundled together to cover a variety of unfortunate events. The lender, not the consumer, determines the bundle of features offered and the choice of carrier.

Private sector loan payment protection in the UK is available for mortgages, unsecured loans, credit card and store card debt. These are usually sold at the same time as the debt is incurred, and are designed to cover failure to repay due to accident, sickness or unemployment. There is also government income support for mortgage interest, which is available only to mortgage holders, comes into play nine months after the loss of all income from earnings, covers a limited loan size, and has other tightly drawn eligibility rules. In addition, there are a suite of ‘stand-alone’ income replacement (or lump sum pay-out) insurances that can be used either (or both) to repay debts or for other things. These latter are most actively sold to mortgagors (usually when they take out their loan) and take the form of life and critical illness insurances (policies which are increasingly packaged as one), permanent health insurance, and unemployment insurance.

Credit insurers in the United States sell a credit insurance group policy to lenders. Thus, the lender not the consumer is the customer. The lender then sells the insurance to the borrower and issues a certificate of insurance to the borrower. Banks, credit unions, finance companies, auto dealership and retailers make the presentation of the insurance to the consumer. Credit

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<sup>7</sup> Other less common events are also covered, such as leaves of absence for childbirth or adoption or gaps in insurance coverage between the amount insured and the amount owed (such as in the event of a car accident on an auto loan).

insurers compete for the business of these “producers” not only through their product offerings and pricing, but also through incentives offered to the producers.

How much business is conducted through the different types of producers is unknown, but Fagg (2004) shows that from 1993-1995 in Ohio, nearly a third of policies were produced by auto dealers, a quarter by banks, a fifth by finance companies, an seventh by credit unions and the rest by others. Note this does not include credit insurance sold in conjunction with mortgages because the Ohio statistics are for unsecured consumer credit only. Also, many national retailers own captive credit-insurance companies and offer credit insurance to their customers through these affiliated companies. Insurance companies sign up producers using their own sales staff or general agents that represent more than one insurance company to sign up producers.

In the case of product purchases, the offer is usually made by a sales person or finance department at the time of loan application or approval in conjunction with the purchase of a good. In the case of credit cards, which are often marketed through mail solicitations, the offer is made by including a flyer in the initial offer and following up even after a credit card has been approved. Consumers in the US, like those in the UK, thus do not shop for credit insurance in the traditional sense. Instead they are offered it by a lender in conjunction with a credit transaction. In large part, this is a reflection of the small size of the credit transactions involved. It is only practical to originate the insurance at the time of loan or line origination. Fagg (2004) reports that the bundle offered to credit card borrowers usually includes life, disability, involuntary unemployment, and family leave. Retailers usually include all these plus property insurance. Personal lines of credit and home equity lines of credit usually offer life only. In the mortgage world, credit life was roundly criticized in the early 2000s and is now less often offered.

The maximum rates for credit life and disability insurance are established by state regulators or legislatures. Carriers usually charge the highest rate in part because the rate becomes the presumptive market price and in part because insurers must charge the highest rate so they can pass along the largest possible commission to producers, or else risk losing market share. Credit unemployment and property insurance rates are set by carriers and rate filings are submitted. In some states, these rates must be approved. A single upfront premium is the

standard product for closed end loans (often rolled into the loan amount) and a premium rate is applied monthly to outstanding balances in the case of open-ended credit.<sup>8</sup>

In closed-end credit, the individual types of credit insurance are often sold separately. Life and disability insurance are available to anyone under a maximum age set by the state. Although a borrower typically signs an underwriting statement stating that they are free of specific conditions, no fact checking is performed unless a claim is later filed. A single premium is charged to everyone below the cutoff age that purchases the insurance regardless of circumstances. This means that risk-based pricing of insurance is not permitted. All comers get the same price, leaving the insurer vulnerable to adverse selection and an average risk pool that benefits the more risky of the insured owing to their health condition, occupation, etc. In open-ended credit, because of the even smaller balances typically involved, it is more common for a variety of types of insurance to get bundled together for a single premium so that it is large enough to cover the risks and the costs of originating and administering the policy. In the case of closed-end credit, a premium refund is issued if the loan is repaid before the end of its term.

***Use of credit insurance:*** The Federal Reserve Board has tracked the use of credit insurance since 1977 by periodically asking a random sample of households if they carry credit insurance on each of several different debt products. The most recent survey to ask about credit insurance was conducted in 2001. It showed sharp decline in the use of credit insurance for a purpose it is most commonly used for and the only product about which consumers have been asked about in each survey – to insure installment loans. The penetration rate held steady at about 64 percent of borrowers in 1977 and 1985 but fell to 23 percent by 2001. In terms of other products, fully 32 percent of households with a first mortgage, 23 percent of second mortgage and home equity line of credit (HELOC) holders, and 20 percent of credit cards said they had credit insurance.

The staff of the Federal Reserve Board is confident that those who have credit insurance know that they do so, and thus believes that these estimates of market penetration are sound. It remains to be seen, however, how many of those who report having credit insurance may have debt cancellation because a separate question about it is not asked. However, it is likely that at least some portion of debt cancellation or suspension agreements in force is over and above the

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<sup>8</sup> For more information on how premiums are set and the costs of originating and administering credit insurance see Fagg (2004) and Consumer Credit Union and the Center for Economic Justice (1998).

reported credit insurance use figures. It is also probable that the decline in the use of credit insurance reflects at least in part an increase in the use of debt cancellation. However, most industry sources believe debt cancellation only started to get offered widely by 2001.

While it is unclear precisely how many loans or lines of credit carry credit insurance, the 2002 Fact Book on Credit-Related Insurance issued by the Consumer Credit Insurance Association (CCIA) provides additional information collected through a very different method. The report does state that the information is derived based on analysis developed by A.M. Best from statutory annual statements of insurance providers. This gives a number for premiums collected over the course of the year for several categories of lending. From 1995 to 2000, net written premiums were in the \$6.3 to 7.2 billion range. Credit life and disability each accounted for about \$2.3-\$2.5 billion of this total. Unemployment credit insurance reached 1.2 billion in 2—and credit property and casualty has hovered around \$1 billion over the entire period. However, about one-fifth of credit-related insurance, by CCIA estimates, is not reported to the CCIA. Thus, the total net premiums are higher than reported totals.

The use of loan payment protection insurance (which spans products similar to credit insurance, debt cancellation, and debt suspension) may be more widespread in the United Kingdom than in the United States. As in the US it is hard to generate figures for UK borrowers concerning the extent of payment protection in place across all styles of loan. The most recent estimates are contained in the GFK-NOP consumer survey commissioned as part of the Office of Fair Trading investigation of payment protection insurance (OFT 2006). The comprehensive Financial Resources Survey of 60,000 consumers which this company runs each year seems to show low rates of take up for all kinds of PPI in the last twelve months: half those with new mortgages, one in three or four of those with new unsecured loans, and less than one in five with new credit and store cards also purchase insurance. However, charting behavior over a longer time period using a follow-up sample of just over 1000 (1131) borrowers, the indication is that as many as two in three (62% of all borrowers) had either taken out PPI in the past or currently held such a policy. Furthermore, looking specifically at mortgagors, and documenting only those protection and insurance policies designed to protect mortgage repayments, Ford et al. (2003), using a sample from the Survey of English Housing, estimate that (excluding life insurance, which has exceptionally high market penetration in the United Kingdom), three in five mortgage holders has some kind of protection: 40 percent hold critical illness coverage, 37

percent have mortgage payment protection insurance, 20 percent have permanent health insurance, and 12 percent are insured against unemployment. Nevertheless, the survey of mortgagors in this study showed that coverage is often partial (covering a limited range of eventualities), and is limited to one earner in the majority (two out of three) of households.

***Consumer attitudes towards credit insurance:*** Surveys sponsored by the Federal Reserve Board provide some insight into consumer attitudes towards credit insurance in the United States. A major reason for fielding these surveys was to test whether consumers understood the product, to see how many felt pressured to purchase it, and to ask whether those who purchased it were satisfied. While in 1977, about 39 percent of purchasers of credit insurance on installment loans felt a lender had “strongly recommended or required” it, by 2001 17 percent did so. The share that felt the lender required them to get the insurance dropped from 26 percent to 5 percent.<sup>9</sup> Thus, it appears that while progress has been made in alerting consumers to the fact that credit insurance is not required, and the practice of strong marketing pitches has eased, neither has been eliminated. Furthermore, only a few percent of those who did *not* insure their installment loans in each of the years felt the product had been strongly pitched to them. In addition, a much higher proportion of those who did not take out insurance in each year – compared with those who did – said that the question of insurance was not raised during their application. Hence, the intensity of the pitch and people’s understandings of whether or not insurance is a requirement of the loan, probably continues to play a nontrivial role in a fraction of decisions.

Nonetheless, of those that purchased insurance on installment loans, the share that after the fact had a good opinion of it has held steady at about 87-89 percent. As in 1985, fully 19 out of 20 installment loan borrowers who took out insurance in 2001 said they would do it again. Among those opting out, however, the share with a good opinion of it fell from 60 percent in 1985 to 32 percent by 2001. The share of purchasers thinking it was bad went from 2.2 percent in 1997 to about 5 percent in both 1985 and 2001, and from 9 percent of non-purchasers to 26 percent in 1985 and 46 percent in 2001. By these measures, the proportion of borrowers with an unfavorable impression of credit insurance had increased and may have played a material role in the decline in the use of credit insurance as a wrap around for installment loans.

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<sup>9</sup> Conversely, the share of purchasers that thought the decision to get credit insurance was irrelevant to creditor’s decision to grant credit increased from 80 percent in 1977 to 86 percent in 2001 and of non-purchasers from 91 to 97 percent.

Among other products, the share of insurance purchasers (non-purchasers) in 2001 rating credit insurance as good ranged from 91 (35) percent of second mortgage/HELOC borrowers, to 75 (36) percent of primary mortgage holders to 57 (35) percent of credit card holders. Those rating it as bad ranged from 30 (47) percent of credit card holders to 10 (46) percent of primary mortgage holders, to less than half a percent (45 percent) of second mortgage/HELOC holders.

That the product is not often asked for initially by borrowers is also made abundantly clear by the 2001 survey. Only 1 percent of mortgage holders, and even fewer of others, said they initiated the request for insurance—in most cases it was offered before it was inquired about. Except in the case of mortgages, in which the use of telemarketing may have led to offers being made after loan documents were signed, the overwhelming majority of purchasers for all credit products were solicited at the time of application or approval.

Unfortunately, the Federal Reserve did not cross-tabulate responses with borrower attributes such as income, race, ethnicity, or age. Thus, it is impossible to know whether there are systematic differences among these groups in their take-up rates for credit insurance for each credit product, the aggressiveness with which the products were sold, their reasons for taking them or not taking them, their attitudes towards them, and their understanding that credit insurance is optional. Small sample sizes restricted the subdividing of the data that could take place with any degree of statistical relevance.

In the United Kingdom, the Office of Fair Trading surveyed consumers of loan payment protection products in 2006. Like in the United States, the survey showed relatively high levels of satisfaction with and understanding of these products by those who bought them. And, like in the United States, the survey found these product are ‘sold not bought’ so there is little shopping around.

***Regulation of credit insurance:*** In the United States, credit insurance and credit insurers are regulated by the states. Maximum permitted “prima facie” loss rates for credit life and disability are set by the states. In some cases rates on credit property and unemployment insurance have to be state approved, but at a minimum a filing justifying the rate must be made. Setting the “prima facie” rate involves balancing the goals of protecting the solvency of companies against providing a benefit to consumers at a reasonable cost. States also regulate other activities of insurance companies and, in all states but Louisiana, hold insurers to the

standards of the Uniform Commercial Code. States also require insurance companies to disclose their activities in annual statements that are made public.

But the federal government does regulate credit insurance through special TILA requirements. These requirements allow netting out the cost of insurance from APR calculations if the lender provides written disclosure of the cost of the insurance and that the purchase of the insurance it is voluntary. TILA also requires that consumers affirm the purchase in writing. In addition, credit insurers are required to comply with more general consumer protection laws, including those against unfair and deceptive business practices enforced by the Federal Trade Commission. Issues of regulation for the UK are discussed by Elaine Kempson in her paper for this symposium.

***Problems with credit insurance:*** Several complaints have been leveled against credit insurance in the United States. The industry has been faulted for charging unnecessarily high fees, offering a product that protects lenders as much as consumers, using aggressive sales methods, competing for lenders not consumers, and coercing or duping consumers into purchasing the product (Durkin 2002). The practice of compensating brokers through commissions that are a fraction of the premium collected has also been criticized. The Consumer Union and the Center for Economic Justice (1998) lay out these arguments in some detail and also make several recommendations about how to address these alleged problems.<sup>10</sup>

A principal charge is that the insurance companies profit too much because the loss ratio (what is returned to insured in benefits as a percent of insurance premium paid) is unusually low relative to other products.<sup>11</sup> The Consumer Union and the Center for Economic Justice (1998) points out that the National Association for Insurance Commissioners (NAIC) model regulation for credit life and disability suggests a minimum ratio of only 60 percent, while actual ratios for group life insurance, group accident and health, and automobile insurance are 90 percent, 75 percent, and 70 percent respectively. Yet despite this, according to NAIC, in 1997 the actual nationwide credit insurance loss ratios ranged from only 12 percent to 49 percent depending on the product. Furthermore, state approved loss ratios varied considerably with the lowest in

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<sup>10</sup> Among their recommendations include: establishing minimum loss ratios, ban gross indebtedness premium calculations, better consumer disclosure than provided for by TILA, prohibit certain practices and stiffen penalties for unfair and coercive sales practices, ban post-claims underwriting, and demanding that insurers and lenders offer each individual coverage separately rather than bundled in ways selected by the lenders and insurers.

<sup>11</sup> Yet another complaint is that premium is sometimes charged in closed-end loans on gross indebtedness, including not just the principal balance but all interest payments over the life of the loan.

Louisiana and the highest in New York. However, the study does not examine reasons why nationwide loss ratios or state-approved ratios may be so low. One explanation is the uncertainty or volatility around claims, although the long history of credit insurance would argue against the former possibility. Another is political influence and pressure brought to bear with some success in some states and little or none in others.

Another common charge relates to the potential for consumers to be pressured or coerced into taking out credit insurance. Lenders have both the motivation and the opportunity to push the product. The motive comes from the fact that agents have an incentive to push the product to earn a premium and protect the lender from certain events that might otherwise cause a borrower to default. The opportunity comes from the fact that consumers are primarily interested in the approval of their loan application and may not fully understand the insurance and its role in the approval process.<sup>12</sup> Critics contend this leaves consumers vulnerable to coercion and being misled (Barron and Staten 1995). The high penetration rates of costly products are touted as evidence of a problem, though of course these rates could also be viewed as evidence of the need for, and the acceptance of, the product. The fact that the shares of people with insurance who feel it was strongly recommended or required by their lender relative to those that opted not to purchase the insurance is further circumstantial evidence that some of those who bought it may have done so under pressure or a misapprehension. Only one study to our knowledge, however, has attempted to undertake a more thorough investigation of the subject, controlling such factors as whether the borrower already had life insurance (Barron and Staten 1995). The study, while based on 1993 data, a sample that was not likely representative due to low response rates, and a methodology that some might argue with, found that at most 1 percent of surveyed credit life insurance purchasers believed insurance was required, 1.6 percent because they thought it improved their chances of success, and 0.6 percent because of sales pressure. Inclusion of direct measures of coercion did not affect the model fit much.<sup>13</sup> This is much lower than the raw shares suggested by simple responses to the Federal Reserve surveys and to the survey used to fit the Barron and Staten model. Also, the incidence of misunderstanding and of consumers feeling pressured by strong sales tactics, at least, is on the wane as measured by Federal Reserve Board funded surveys.

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<sup>12</sup> For an interesting piece on the marketing of credit insurance from the producer's perspective, See Elsea (1988).

<sup>13</sup> It is worth noting, however, that the decision to purchase credit life was positively associated with race and ethnicity and negatively associated with education, often even after controlling for direct coercion measures.

The credit insurance industry has also been criticized for engaging in “reverse competition” (Credit Union and Center for Economic Justice 1998). This is the process of competing for the business of lenders by offering them the highest possible compensation rather than for consumers by providing them the lowest possible price. Consumers do not shop for credit insurance in the traditional sense. Rather, they are offered it as part of a credit transaction by the lender. Thus, while lenders should take into account the pricing of the product and its features since more competitive terms should result in higher take up rates by consumers, they can also be swayed by insurers who offer them higher sales commissions even if the price of the product is greater than that of competitors. As further evidence of the ill effects of reverse competition, the two groups cite the testimony of an industry consultant that stated the reason credit unemployment coverage was added to the bundle offered consumers on credit cards was the lower balances on open than closed-end debt and the need to boost premiums to defray the fixed expenses of originating and administering policies. This was done, they argue, for the insurer’s not the consumer’s benefit. Part of the reverse competition entails, they also argue, handing over significant shares of the premium to compensate brokers. Nationwide compensation of this sort was more than 30 percent for credit life and disability in 1997. Of course, premiums are small, so even modest large shares can equate to modest sums. In addition, the low loss rates in part reflect high costs of origination. Agents have also been criticized for aggressive sale tactics that in some cases has resulted in legal actions and large settlements (Credit Union and Center for Economic Justice 1998).

Lastly, the value of insurance is also as good as the insurer’s willingness to make good on its claims. If insurers drag their feet on paying claims or deny legitimate claims, the insurance is worthless. Keest (1995) faults the industry for only checking eligibility factors after a claim is filed, taking the underwriting statement signed by the insured as true until the industry decides it may want to challenge it.

While these criticisms have been leveled against credit insurance, all of them, except perhaps the state-permitted loss rate, could be leveled against all insurance products. Indeed, as long as consumers take out credit insurance at the point of a retail sale, agents that both sell the consumer product and the credit insurance are likely to play a significant role. And as long as lenders and insurance carriers remain largely distinct, credit insurers will have to compete for lenders, and consumers will likely get offered only the credit insurance product offered by the

lender they have elected. Of course, if consumers shopped around for credit insurance rather than taking the product offered by the lender or the lender's agent, an informed consumer could select the best available product rather than the product most available to them.

In the United Kingdom, the loan payment protection industry came under criticism recently following a 'super complaint' submitted in 2005 by the Citizens' Advice Bureau to the Office of Fair Trading. The complaint argued that Payment Protection Insurance is harming the interests of consumers. The consumer survey and market study launched by the Office of Fair Trading (2006) in response found multiple faults with the industry that echo faults found in the United States.

The report highlights, first, a cluster of issues around information and sales tactics. As noted above, these products were faulted for being 'sold not bought.' In addition, the study found that what consumer shopping does take place is complicated by complex pricing and variable information (for example, more detail tends to be provided on what is covered, than on what is excluded). Terms are often confusing, there is little standardization among products, and it is hard to compare prices. Unlike in the United States, however, the price of unsecured loans in the United Kingdom tends automatically to include the costs of insurance, and over one in four respondents to the Office of Fair Trading consumer survey had the impression that their application for credit would be more likely to succeed if they agreed to insure their loans. On the whole, it appears that while consumers may not shop for these products rationally, suppliers appear to be making few attempts to remedy this.

Second, the report contains a cluster of indicators pointing to the poor value for money represented in Payment Protection Insurance products. Like in the United States, these include low claims ratios compared to other insurances, high commission rates (from 50 percent for mortgage payment protection insurance, to 61 percent for credit card payment protection and 70 percent for retail credit), and excessive price variability which is not linked to differences in the quality of products.

***Advantages of credit insurance:*** Credit insurance and loan payment protection insurance are appealing because they hold consumers harmless if a limited range of events occurs. They are the insured party or hold certificates of insurance. As a result, events over which the debtor has little control do not end up ruining their credit records and forcing them to pay sharply higher subprime rates in the future. Other benefits are more psychological, such as reduced concerns

that future events may drive a person to default and/or bankruptcy. Indeed, in 2001 4 percent of those with closed-end credit insurance in the United States that thought insurance good stated it provided them with a sense of security. But 74 percent cited the protection it affords them as the reason for purchasing. A surprisingly small 4.5 percent stated it the protection it affords their credit rating (though awareness of the importance of credit rating at that time may have been more limited than today).

Many buy insurance because they are underinsured and want it, not because of aggressive sales tactics. In fact, the evidence suggests that the overwhelmingly majority are satisfied with the product after the fact even if it may have been the strong recommendation of the lender that motivated them to purchase it. Hence, while aggressive tactics persist and some borrowers are under the mistaken impression that the insurance is required the majority who purchase the insurance are under no misapprehension. Apart from whether they may overpay the insurance, have been targeted because of their predisposition to influence, or have been persuaded of its value by clever methods, even after time has passed, the product is popular with those who use it.

Fagg (2004) lists three reasons why credit insurance is purchased by consumers in the United States: 1) they have a need; 2) the product is available; and 3) the cost of the product is reasonable. As evidence of the first reason, he points to the significant fraction of borrowers who take out insurance and the need it fills for those who are uninsured or underinsured. As evidence of the second reason, he points to the less obtrusive and more convenient process of applying for credit insurance than for similar basic insurances, such as life insurance which may require a medical examination, a lengthy underwriting process, and uncertainty about the premium that will ultimately be charged. It is easy to understand and meets a need a consumer may have when they borrow. As evidence of the third reason, Fagg points to the fact that it adds only a small absolute dollar amount to monthly payments that consumers feel they can swing and for which they get back a real benefit. He acknowledges that it is more expensive than basic insurance (credit life v. term life for example) but explains that it is justified by its convenience and the smaller amounts it can be issued in. This is akin, he states, to the higher price that people pay in a convenience store for goods. To that might be added the higher cost of a slice of pizza than a pie because it is available in the smaller amount the consumer wants.

From the producer perspective, credit insurance and payment protection insurance indemnifies them, provides them with fee income, and allows them to avoid collecting on a debt

at a time of personal or family crisis. Indeed, an important reason that credit insurance and loan payment protection insurance evolved is that when lending was local in nature, it was very difficult for lenders to approach known grieving neighbors to get repaid after the death or disability of a family member.

***Overall conclusions about credit and loan payment protection insurance:*** Credit and loan payment protection insurance is not for everyone and not everyone uses it. Furthermore, its use has been waning. The profile of the consumer that opts for credit insurance in the United States is also distinct. A higher proportion of low-income debtors purchase it, as might be expected given their lesser other insurance coverage and smaller average savings. Within the low-income population, the higher proportion of minorities than whites that use the product is cause for concern though may reflect their even lower other insurance coverage rates than whites. Consumers that elect to purchase the insurance are generally content with it, but some express dissatisfaction and are more favorably disposed than those who elect not to purchase it. Many concerns have been raised about the agency risk in the system, the impact of competition for agents on pricing and the uniformity of pricing to consumers, sales tactics, and state-regulated prices. This, together with the emergence of debt cancellation products, likely explains the declining use of credit insurance.

Charges that credit and loan payment protection insurance protect creditors as much as consumers are beside the point – creditors underwrite the policy and price it to manage the risk plus earn a competitive return on capital. The advantage of credit and loan payment protection insurance is that they fully relieve consumers of their debt or makes payments for a period of time on their debt under certain circumstances. The problem with the products come from how they are actually priced and offered with some of the factors, like the small size of loans involved, make lowering the costs more difficult. Credit and loan payment protection insurance fairly offered and priced can provide significant benefits to consumers who lack certain other more expensive and broad insurances, such as health or disability insurance. They also help protects consumers that have little or no savings to fall back on in the event of a significant disruption to income or a sudden unexpected necessary expense that force them to default on their debt, in turn restricting future access to credit and driving up future borrowing costs. Especially if the coverage results in some concession on the interest rates and fees charged by the lender with respect to comparably situated borrowers to reflect the credit enhancement, credit insurance is a

desirable way to protect debtors. In an ideal world, the price of the credit and loan payment protection insurance and the loan would reflect the value of indemnifying the lender, which the lender would subtract from the interest rate, plus the value to borrower of protection against a reduction in their credit score and lost access to credit.

### ***Debt cancellation contracts and debt suspension agreements***

Here we examine market-based approaches to allowing consumers to cancel or suspend their debt. Of course, bankruptcy law provides a government-sponsored approach to discharging debts. Like debt cancellation and suspension agreements, bankruptcy has its costs but it is beyond the scope of this paper to examine real, notional, and personal costs of filing for bankruptcy and having debts restructured in bankruptcy.

***Nature of debt cancellation:*** Debt cancellation and debt suspension are similar in design to credit insurance but are offered directly by banks and are regulated differently than credit insurance. Debt cancellation relieves a borrower of making payments for a period of time (or permanently in the case of death) while debt suspension allows borrowers to defer payments for a period of time without interest accruing. Some of these facilities are now built into the structure of mortgage finance – payment option mortgages and interest only loans give one kind of flexibility, and in the UK and Australia mortgages are flexible enough to allow borrowers to build up overpayments and use them to service under-payments or payment gaps in future. Debt cancellation and suspension products *sensu stricto* have their origins in the efforts of national banks to protect themselves from losses arising from the death of debtors and later to assert the right to offer products with these features even though they have insurance-like characteristics.<sup>14</sup>

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<sup>14</sup> In 1963, the National Banking Review of the Office of the Comptroller of the Currency (OCC) found that it was a legitimate exercise of banking powers to enter into debt cancellation contracts with borrowers for the purposes of setting up reserves for losses from the death of borrowers. In 1977, the OCC codified an earlier ruling that expanded debt cancellation contracts to cover loss, theft, or destruction of collateral. Of course, this perceived incursion of banks into an area so similar to credit insurance was resisted by credit insurance companies. In 1987 a bank in Arkansas announced its intention to write debt cancellation contracts. After first stating it did object to this, the state insurance regulator reversed itself after pressure was applied by credit insurers. The bank sued, won, won on appeal, and the Supreme Court refused to hear the case. This opened the doors for banks to offer debt cancellation products without fear of legal challenge. The OCC continued to expand permissible powers of banks in this area by an interpretive letter in 1994 that extended these powers to include offering products that cancel debts in the event of disability and unemployment of the borrower. In 1995 and 1996, bank powers were expanded further to offer vehicle service contracts on auto loans or leases financed by banks. These marked the final steps in allowing national banks to offer debt cancellation products that were fully competitive with credit insurance. Nevertheless, additional clarifications of the powers and obligations of national banks to offer debt cancellation have been ongoing since then. For more details on the law and regulations governing debt cancellation products, see CreditRe (2003).

Technically, a debt cancellation contract or suspension agreement involves a loan term or a contractual arrangement that modifies a loan term in which a bank agrees to cancel or suspend all or part of a customer's obligation to repay the loan upon the occurrence of a specified event. These events now include involuntary termination of employment, death, disability, and family leave, and covered instruments include loans, lines of credit, and vehicle leases. While the OCC established the precedent for national banks, virtually all state banks are also authorized to offer the product because states have parity provisions to avoid state banks being at a disadvantage relative to national banks. While once the authority of banks to offer the product was questioned and the coverage available limited, by 2000 these doubts were gone. Banks can now, in fact, cover even more events than even credit insurers, such as debt suspension in the event of childbirth and debt protection in the event of a hospital stay.

Debt cancellation and suspension involve charging borrowers a percentage of their loan balances on credit cards for the benefit of debt cancellation coverage. Banks also offer them closed end loans. Because the lenders offer the debt protection directly to consumers, there is no separate "producer" involved like there is with credit insurance. In the case of credit cards, the solicitation by the bank is done mostly via mail. In the case of auto and other closed-end loans, unless the customer comes to a branch to apply for the loan, a third-party originator such as a retailer may still be involved (check with CCIA).

Many banks that offer these products contract with a credit insurer either to administer the products. Banks also frequently take out contingent liability insurance policies with credit insurance companies. These so-called "CLIPs" are intended to transfer some of the risk to a credit insurer. This allows banks to manage safety and soundness requirements in an efficient way.

***Use of debt cancellation and suspension:*** Unfortunately, there is no public information on how widespread is the use of debt cancellation and suspension agreements. Industry contacts suggest that take up rates on credit cards and installment loans are about the same, or slightly higher, than the take up rates had been when banks offered credit insurance instead. Because these banks products are more a substitute for than an addition to credit insurance, the figures reported for 2001 from the Survey of Consumer Finance for how widespread the use of debt cancellation, debt suspension, and credit insurance combined are probably about right in order of magnitude. But the balance since 2000 has tipped decidedly towards debt cancellation and suspension. In part this is because of the timing of OCC rulings and in part, according to

industry experts, because loan officers at banks prefer to offer debt cancellation and suspension, which enjoy good reputations, rather than credit insurance which is less well regarded. Importantly, debt cancellation and suspension can be offered to mortgage borrowers also, but its penetration in this market is likely lower simply because banks originate only a fraction of mortgage loans.

***Consumer attitudes towards debt cancellation and suspension:*** There is no publicly available information on consumer attitudes toward debt cancellation either, but its reputation has not been sullied to the degree of credit insurance, so it is likely that it is viewed at least favorably by those who opt for it as those who opt for credit insurance.

***Regulation of debt cancellation and suspension:*** Regulation of debt cancellation contracts and debt suspension agreements for national banks is entirely under the purview of the Office of the Comptroller of the Currency for purposes of safety and soundness, ruling on permissible powers, and examining compliance with fair lending laws. However, through state parity in banking power laws, state banks have the same powers and are governed by the same regulations as national banks offering these products but are examined for compliance by state rather than federal regulators. The regulation of debt cancellation hence involves a single federal regulator and features regular examinations. While the Federal Trade Commission is charged with enforcing the law with respect to marketing practices in offering debt cancellation as is the case with credit insurers, the OCC can refer cases it may uncover in its examinations.

In 1996, the Federal Reserve amended Regulation Z implementing the Truth in Lending Act to require inclusion of debt cancellation fees in the Annual Percentage Rate disclosure, unless certain disclosures are made and certain requirements similar to those demanded in the case of credit insurance are met. The amendment was upheld in court. The OCC, however, has since issued far more stringent disclosure rules and constraints on marketing practices that may constitute unfair or deceptive. In 2002, the OCC issued an involved consumer protection rule. Importantly, it prohibited national banks from offering lump sum, single premium debt cancellation contracts on residential mortgages. It also provided for standardized consumer disclosures of key information that are suited both to mail and telephone solicitations (via a short-form disclosure), and a lengthier disclosure that must eventually follow it. Important features of the new rule intended to protect consumers include the following: prohibiting banks from tying approval of terms of a loan to the customer's purchase of the product; engaging is

misleading advertisement and practices, retaining the unilateral right to modify product terms unless it benefits the consumer or the consumer has the right to cancel without a penalty; offering a bona fide option of a product that has a refund feature; offering a bona fide option to pay the premium monthly rather than as lump sum (except for mortgages where a lump sum payment is no longer allowed); disclosing that the decision to purchase the product is optional and does not affect the application, a refund option is available, a monthly payment option is available; disclosing that additional information will be provided in a long-form disclosure form when only a short-form disclosure is first presented. The rule also requires the customer in most cases to provide written acknowledgment of receipt of disclosures, and provide an affirmative election to take the product. Banks are also under obligation to make all these disclosures simple, direct, and readily understandable.<sup>15</sup>

***Advantages of debt cancellation and debt suspension:*** These bank products have the same advantages as credit insurance discussed above, but have some additional features that are more appealing than credit insurance from both the consumer's and the lender's point of view. First, the customer works directly with the lender. The compensation of the loan officer is therefore established by the bank and not according to an arrangement with a third-party insurer's policy. Thus, consumers do not necessarily receive a price as high as the maximum prima facie credit insurance rate in a state because a third-party has competed for business by offering the highest commission possible to the lender. Second, it means that a lender, if it works with a credit insurer at all, likely bargains for the lowest price for the administration of the product or risk sharing that the bank can get from the insurer. In a competitive market, this should help reduce prices to consumers. Third, banks may be able to deliver the product more cheaply because marketing costs of credit insurers are removed from the equation. As for the lender, it allows it to price and underwrite the product to its own standards and guarantees the same regulations will apply regardless of the state it is operating in.

***Problems with debt cancellation and suspension:*** Debt cancellation may have some of the same problems as credit insurance but it clearly avoids others. Reverse competition is less of an issue, for example, and the price of the product is set by the market rather than insurance regulators so often faulted for providing too generous loss ratios to credit insurers. Comments

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<sup>15</sup> For more information of the rule and how regulators responded to comments on the proposed rule, see the final rule: Department of the Treasury, Office of the Comptroller of the Currency, 12 CFR Parts 7-37, [Docket No. 2-14] RIN 1557-AB75.

received on the OCC rule ultimately issued in 2002, though, provide insights into lingering concerns with these products and how they are priced and offered. Advocates are still concerned that despite the heightened disclosures, there is a risk of reverse competition and a risk that lenders can pressure customers into purchasing debt cancellation or suspension products. The choice of offered coverage and the bundle offered is still in control of the lender. Consumers, though they certainly could, still may not shop for a lower combined interest rate and debt cancellation contract cost elsewhere because of search costs and a more overriding focus on loan approval. Advocates also are troubled by allowing banks the authority to offer a no-refund product at all or to unilaterally modify a contract or agreement under any circumstances.

***Overall conclusions about debt cancellation and suspension:*** Like credit insurance and loan payment protection, debt cancellation and suspension have the distinct advantage of insuring the borrower as well as the lender against risks over which they have little or no control. Like credit insurance, they give borrowers a convenient way to insure against certain risks without going through lengthy underwriting and having to pay for larger blanket policies. There is little question that relative to credit insurance the risks of reverse competition increasing rather than decreasing prices for consumer is much lower if not eliminated. The regulations governing the offering of these bank debt protection products are both stringent and uniform across states. Examination for compliance is regularly scheduled as part of broader bank examinations (though how central a concern of these exams they are remains to be seen and likely depends on external pressures that ebb and flow). Not enough is known about actual pricing or practices to judge whether they are materially better than under credit insurance, but the disclosures are more rigorous and restrictions on practices greater. Thus, on balance debt cancellation and suspension have greater appeal than credit insurance provided it is not offered at a higher cost and does not involve more elements bundled together.

There are perhaps ***three broad conclusions*** regarding the use of insurances and related market resources for risk mitigation among borrowers. First, they are declining in popularity, cover a limited range of events, and even then tend to be too expensive for those that need them most.<sup>16</sup> Second, they have recently been open to criticism by those most concerned with consumer protection, and may be implicated in insurance aversion among some borrowers. And

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<sup>16</sup> Ford et al. (2003) found the main reasons that mortgagors in the United Kingdom failed to buy coverage was overall cost (unaffordability) or the judgment that such insurances represent low value for money.

finally, their effectiveness depends almost entirely on the resources and behaviors of individuals, who may or may not be in a position to make the best use of what is on offer.

Hence it is generally agreed that a return to some broader risk sharing is necessary to stabilize credit markets and protect their participants, particularly where borrowing is packaged into mortgages. An alliance of home buyers, lenders and government is, for example, at the heart of SHOP – the safe home ownership partnership proposed by Ford and Wilcox (2005) to manage the (credit) risks of mortgage arrears and repossession in the United Kingdom. But so far the options for sharing risks in this way have been limited in scope, uneven in coverage and relatively costly. They are also based on relatively unsophisticated financial instruments, which (alongside tighter regulation) is why they are less cost-effective, less appealing and less safe than they could be. What are the alternatives?

### **“Modern Methods”: Derivatives**

When large organizations face the kinds of risks today’s householders routinely live with, they make use of a suite of financial instruments invented precisely to manage such uncertainties. These are known as ‘derivatives’: they are contracts (usually in the form of futures, options and swaps) which, thanks to innovations in financial engineering, effectively separate the investment returns on commodities, assets and securities from their ownership and use. So although the value of a derivative does ‘derive’ from the price of an underlying asset (such as housing) or, more properly from a ‘basket of assets’ (in the case of housing, usually a price index), the contracts themselves can be traded independently. As we shall see, this means that derivatives can be used to help spread the risks of holding certain kinds of stock or investments (including mortgage debt and housing equity).

It is probably the case that the awkward (and partial) integration of mortgage and financial markets – including the complex world of credit derivatives and the fragmentary market for MBS derivatives – that underpins the ‘credit crunch’ currently destabilizing parts of the Anglo-American banking system. So it may seem naïve – perhaps dangerous – to suggest that there is anything in the way financial markets work that could protect homebuyers, or could cushion borrowers more generally, from the fallout of this. However, at a time when mortgages no longer look like assets, and borrowing ceases to offer the means by which individuals and institutions “spend their way” out of problems, it is worth remembering that home equity – even

in its highly mortgaged state – still has financial worth. Even borrowers with negative equity hold the title deed to a relatively large financial asset. Until recently, however, there has not been much they could do with this. This is because, even though the value of derivatives markets exceeds ten times the world's entire GDP, nearly none of this is anchored on the single largest class of assets in existence: housing. Until last year there was limited engagement of housing with financial markets: there were no exchange-traded housing derivatives at all, and the only country with a tiny amount of over-the-counter activity was the UK. This, however, looks increasingly set to change: in 2006 the Chicago Mercantile Exchange began selling US housing options and futures on the Case-Shiller S+P house price index; last year, Radar Logic began licensing its own daily residential property index (RPX); there is a continuing surge of activity in the UK on the Halifax house price index, and an embryonic market is developing in Australia.

Although derivatives are generally used by large institutions to diversify their investments and hedge their exposures, there is no reason in principle why they should not be packaged into products or initiatives designed to protect consumers – except that these markets are least well developed in areas that could be most useful to the majority of borrowers. So it is at least worth considering whether and how *housing* derivatives could be harnessed to help manage or mitigate the credit, income and investment risks to which mortgagors are exposed.<sup>17</sup>

The following overview of the options for developing derivatives-based risk mitigation therefore concentrates on housing (equity) rather than debt (credit) derivatives. Whereas conventional risk-mitigation strategies concentrate on how to manage debt directly (credit insurance, income support, loan cancellation, bankruptcy and so on), some of the most interesting modern methods focus on equity-orientated solutions to protecting homeowners in debt. These solutions recognize that just as mortgages are households' major source of debt, so home ownership accounts for the majority of people's wealth. It makes sense, therefore, to consider innovative ways to enable people to use home equity to manage mortgage debt, particularly where this helps avoid bankruptcy and prevent homelessness.

There are already a number of schemes which adopt this principle without the help of derivatives. In the UK, for example, the Joseph Rowntree Foundation has argued in favor of a

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<sup>17</sup> Some people regard mortgage backed securities as derivatives, but these are mainly investment vehicles, like bond: they only work as derivatives when they are made into this style of instrument – for example packaged into a special purpose vehicle in the credit derivatives markets, or as part of the tiny market in MBS derivatives. Furthermore, since derivatives on the debt side of housing are not as obviously useful to consumers as derivatives on the equity side, our discussion focuses only on the later innovation.

flexible approach to housing tenure for at least 20 years. Initiatives are in place to allow renters to “staircase up” into ownership when and if their incomes allow, and to draw back on these funds by “staircasing down” if they get into repayment difficulties. This “reverse staircasing” is a way to avoid mortgage arrears and possession following financial hardship. But although similar ideas around fractional ownership and equity share have also been encouraged by governments as well as the UKs Council of Mortgage lenders, these special schemes and arrangements tend to be limited in scope and coverage, not least because it is hard to make them attractive to institutional investors.

The only other option available to home owners to use housing equity to offset mortgage debt is to borrow up. Flexible mortgages, for example, were initially encouraged by governments precisely because they allow people to overpay when incomes are robust, and underpay or take payment holidays should earnings dip or other expenditures increase. And this has, to an extent worked, in the robust economic climate of the last decade. Drawing from a survey of flexible mortgagors, for example, Smith and Ford (2002) show that while just 17 per cent have some form of mortgage credit insurance (accident, sickness or unemployment insurance) fully 35 per cent – more than twice as many – have enough savings stored in their mortgages to cover repayments for the same period. Looking more generally, both Benito (2007) (using the British Household Panel Survey) and Smith et al. (2007) (using qualitative interviews with a cross-section of English mortgagors) show how mortgage equity withdrawal may one way to draw from housing wealth for form a financial buffer.

However, Case and Shiller (1996) showed over a decade ago that there is a tight link between price stagnation or decline in housing markets, and the risk of mortgage default. Some of the reasons for this, and evidence of its continuation into the current housing and mortgage market cycles are set out earlier in this paper. Falling prices (and even house prices which do not appreciate in line with inflation, or as fast as other assets) can prevent people using home equity to mitigate the other (credit and income) risks to which they are vulnerable and which cannot easily (or cost-effectively) be managed in other ways. And this is where housing derivatives might be useful.

Housing derivatives are based on house price indices (HPIs) whose future values can be traded in the form of contracts settled in cash. Not only does this mean that individuals and organizations that own no physical housing at all can buy into the ups and downs of property;

crucially it means that those (primarily home owners and buyers) who have too much wealth concentrated into housing (or whose only financial resource is in the form of housing) can, for the first time, ‘sell off’ some of that risk to protect themselves against stagnant or declining prices, and to manage unsustainable debt.

A case for managing the risks of over-exposure to housing by hedging with an HPI (which is effectively a basket of properties) is introduced by Case et al. (1993) for the USA, and elaborated for the UK by Iacoviello and Ortalo-Magné (2002). The economics are spelled out by Englund et al. (2002), who use a rich Swedish dataset to show that although real estate stocks can offer some protection for the risky portfolios of highly affluent investors, if the aim is to minimize risk overall ‘housing should be financed, almost exclusively, by going short on the housing index’ (p. 187). The social argument is sketched by Smith et al. (2009) who use qualitative data from the UK to show both the extent to which borrowers depend on the magnitude and liquidity of the wealth in their home as a financial safety net, and the extent to which they are willing to engage with derivatives-inspired solutions. The wider picture for Europe is filled in by Quigley (2006) who uses data from a panel of countries to show the potential financial gains and likely reduction of risk for households exposed to different levels of price volatility. In an earlier discussion, Quigley (2005) cited derivatives as the answer to his rhetorical question of ‘How to improve the welfare of European housing consumers at practically no cost’. His recent more detailed analysis, concludes with the observation that ‘The benefits to consumers of hedging in European housing markets are on the order of several percentage point, *not* several basis points’ (2006, p. 17). In short, the potential advantage to home buyers of being able to hedge their housing risks effectively is high.

The advantages are higher still if their net result is to maintain a property market liquid enough to allow borrowers who are in difficulty to trade down. One vehicle for this is home equity insurance, as discussed in Shiller and Weiss (1994). This (together with some kind of ‘down payment’ insurance) is the only widely-discussed retail application of housing derivatives to date, and it has already been applied in the USA, in the much-discussed pilot scheme in Syracuse (Caplin et al. 2003). More important here, however, is that possibility that housing derivatives can be drawn into solutions to credit risks that avoid the need for trading down or refinancing, and that avert the threat of possession.

Less is written about the use of housing derivatives to manage credit risk directly (though see Case et al. 2003). However various scenarios can be envisaged by thinking of real estate derivatives simply as a means of splitting out the two components of housing ( $H_{si}$ ) which are currently indivisible: the cost of the homes (or housing services) that people own, occupy and use ( $H_s$ ); and the cost of the investment vehicle ( $H_i$ ) – the ups and downs of price – which home buyers must always purchase as well. There is already a market for  $H_s$  and  $H_i$  combined ( $H_{si}$ ): this is currently the only way people can buy into home ownership; they must buy both the property and the investment vehicle. But if markets could be developed for  $H_s$  and  $H_i$  separately (if the investment returns could be detached from the ownership and use of the property), then the scope for using equity solutions to handle credit crises is radically enlarged. The possibilities this opens up are summarized below (drawing from a fuller account contained in Smith, 2007).

First, with a market in  $H_i$  – with the option to buy into the performance of a basket of house prices – the need to buy into home ownership itself simply for investment returns is removed. So price-linked savings vehicles (savings accounts and bonds), of which there are now several in the UK, can potentially protect savings from house price inflation and so remove the impulse to ‘buy early and pay high’. This tendency to enter home ownership (too) early as an insurance against being locked out of the market later is common in the UK. It occurs to a lesser extent in the US (Banks et al. 2002) but it is one of the factors which currently propels younger households into unsustainable debt. In fact, if the tax treatment of house-price linked savings and bonds were brought into line with that on home equity, the possibility to buy house price performance in small chunks, without the added costs of the physical property, could significantly reduce the borrowing commitments of households who are currently on the margins of ownership.

Second a market for  $H_s$  without  $H_i$  (or without some proportion – perhaps up to 40 percent of  $H_i$ ) potentially reduces the costs of entry to home ownership. Even with current market uncertainties this might improve affordability – possibly by as much as 25 percent. In effect, then, buyers can sell tomorrow’s price appreciation in return for today’s more sustainable levels of debt. There are currently examples of this on the market in Australia.

Third, perhaps most critically, derivatives-based solutions may be appropriate for people who are conventional home buyers (ie they have the package  $H_{si}$ ), but who can no longer service their loan. For example, Syz et al. (2008) working at the Zurich Cantonal Bank, have developed

a house price-linked mortgage to protect borrowers who, like many in today's US subprime sector are in danger of default as house prices fall and refinance proves costly. This is a secured loan whose repayments vary with a local housing index, so that as prices fall, so do loan repayments (alternatively this reduction can be rolled up and subtracted from the principal at the end of the repayment period). The aim here is to manage both price and credit risk in a variety of ways that are elaborated in Syz (forthcoming). A similarly radical concept, which has a wide variety of possible applications, has been developed by Liu (2006) under the umbrella of SwapRent (SM). This is presented as a method of separating out the legal and economic ownership of housing, and it formalizes the way home buyers can sell a slice of their future price appreciation (some proportion of their investment return over a certain number of years), in return for a capital sum, or an income stream sufficient to reduce the extent of their default and limit the risk of foreclosure. This product (via the mortgages that embed it) potentially allows home buyers to rent when it is economical to rent and own when it is advantageous to own (or to change the proportion of their property that they are renting or owning), without moving or giving up the title to their property. Obviously this has a variety of applications other than that of managing credit risk, but currently it is appealing as a means of handling the combination of rising interest rates and uncertain house prices that are destabilizing so many of those whose loan portfolio is mainly rolled up against their home.

## **V. Conclusions**

In societies like the US and the UK, where consumption is fuelled by credit rather than cash, the prospect of developing new partnerships between governments, markets and individuals to ensure consumers against unsustainable debt, is appealing. As well as lenders being protected against events they do not control, borrowers could be too: they could avoid default, keep their credit score intact, and – in a world where so much borrowing is now secured against housing – avoid homelessness. Much of the discussion in this paper has focused on mortgagors, partly because of the growing use of mortgages to anchor all kinds of debt, but also because, unlike the credit card market which is dominated by national banks that can offer debt cancellation contracts, the mortgage market is dominated by other players that cannot. Thus, traditional products—and arguably more efficient ones like debt cancellation, enabled because banks self-insure and avoid a third party—are also less available to mortgage borrowers, and are less regulated.

There are merits in both the conventional insurances and the derivatives-based solutions discussed here, though neither is problem-free. Products incorporating derivatives should be cheaper at the point of sale, and may offer a one-off solution to a one-off problem (caused by stacking borrowing against homes in a period of uniquely low interest rates). But there is no reason to think that – even when the product range is bigger – these solutions will automatically be priced more fairly, regulated more effectively, delivered more efficiently, or be more successful in avoiding the charge of sharp practice, than the more traditional solutions whose mixed merits are detailed in this paper. The first priority of most actors in financial markets actors is probably not to meet the needs of ordinary households: in fact the deterrent of ‘reputational risk’ is very strong; almost as problematic as growing insurance aversion among consumers.

Nevertheless, it might be in the interests of some policy makers, some market segments and a broad sweep of consumers, to build partnerships to deliver derivatives-based retail products. There is no reason, in principle, why these should not be fairly-priced, efficient, and cost-effective risk-management tools for all parties. There may, indeed, be an argument for using housing derivatives to win back the partnership approach to sustainable finance that was lost in a previous wave of enthusiasm for traditional market-based insurance. To the extent that properly regulated, wisely-used financial markets can effectively protect large institutions from risk, there is no reason why they should not – with a little more political imagination – be used to deliver a range of social goals that are currently priced off the agenda.

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