Pensions or property? Risk perceptions and the saving strategies of the UK creative class, 2007 – 2010. *Gordon L Clark*, School of Geography and Environment, University of Oxford, Hinshelwood Road, Oxford 0X1 3QY, UK *and* Faculty of Business and Economics, Monash University, Caulfield 3145, Victoria, Australia.

Contact. gordon.clark@ouce.ox.ac.uk

Abstract. Saving for retirement is fraught with risk and uncertainty. For those not privileged by participation in a defined benefit pension plan, the issue is made complex and problematic by the failure of inherited decision rules: the options available are variable in terms of their costs and possible consequences, there is considerable uncertainty surrounding the anticipated outcomes of different options, and it is quite unclear whether conventional savings instruments are better or worse than simply relying upon housing and property. In this paper, the problem of saving for the future is conceptualised and then interrogated against respondents' views and opinions as reported in the Money section of The Sunday Times. Those interviewed are representative of a distinctive segment of the UK working population (the creative class) and face, perhaps more than most, the prospect of being largely responsible for their retirement income. Due regard is paid to the age and reported incomes of respondents in relation to their professed intentions just as consideration is given to their apparent risk predispositions. It is noted that many respondents preferred property over pensions across the four years considered—from the peak of the bubble through to the onset of the age of austerity. An interpretation of this preference is offered, emphasising the localisation of risk apparent in many people's perceptions of the value of property as against the abstract, often global perceptions of risk associated with the performance of pension products.

Keywords. Saving, media, investment, risk, pensions, property

JEL codes. D03, D14, G23, R21

Acknowledgements. The author would like to thank Kendra Strauss, Janelle Knox-Hayes, and Divyesh Hindocha from Mercer for their commitment to and involvement in a series of related research projects on behaviour, savings, and pensions. This research was also made possible by a number of funded research projects on the nature of behaviour under risk and uncertainty previously sponsored by the ESRC, the NAPF, and the Leverhulme Trust. Early on, the author benefited from collaboration with Emiko Caerlewy-Smith and the late John C Marshall. Data analysis reported in this paper was made possible by Csaba Burger, Olga Thönissen, and Munish Sikka. As well, Kathryn Cooper, editor of the Money section of The Sunday Times provided useful information on the editorial process and content of the section and Michael Berry provided insight and experience on the pensions and property connection. Comments on previous drafts of this paper were provided by Mike Berry, Ewald Engelen, Paul Langley, Olivia Mitchell and Susan Smith. None of the above should be held responsible for any views and opinions expressed herein.

Introduction

For those with a foothold in the UK property market, the last decade of the 20th-century and the first decade of the 21st-century provided many with "wealth" far beyond that earned in the UK labour market. House price inflation was the norm, the product of limited supply, burgeoning real wages, accelerating household formation and speculation. Sudden but short macroeconomic dips did little to rein in the trajectory of house price inflation. Whatever the social costs of house price inflation, many people believed that in the worst case scenario their particular property holdings would at least hold their value or not decline to the same extent as the market (reflecting stories told about the effects of the macroeconomic slowdown in the first half of the 1990s). Even in the aftermath of the global financial crisis, property is still touted as a hedge against the turbulence of finance capitalism.

Housing wealth is rarely immediately realised by its 'beneficiaries'; more often than not it is a 'lock-box' for future income and old-age security (Disney et al. 2002; Ameriks et al. 2011). However, it is apparent that the path of house prices, the trajectory of financial markets, and elements of earned incomes are contingent upon macroeconomic circumstances <u>and</u> are highly correlated for a significant portion of the UK workforce (Clark et al. 2010). Furthermore, the rapid decline in pension plan coverage in the private sector and, amongst those employers who continue to offer pension benefits, the increasing significance of money purchase or defined contribution pension schemes means that individual retirement saving is caught-up in the ebb and flow of global financial markets. In this context, property is not just a convenient hedge against market turbulence, for some it is also a hedge against the long-term performance of retirement savings products. In this respect, property markets have become a strategic variable in many people's long-term planning (Smith et al. 2009).

House price inflation has not been uniform in effect; the hottest property markets have been in the South and in specific neighbourhoods of the UK's largest cities. Most people did not switch jobs, houses, and neighbourhoods seeking to capitalise on the burgeoning labour markets and housing markets associated with the bubble. Even so, switching has been one element driving the trajectory of the UK property market.[1] In this paper, we seek to better understand how and why a distinctive segment of the UK population were caught-up in property market speculation focusing upon their expectations as regards the relative virtues of pension savings compared to property investment for long-term retirement income. In doing so, we characterise their expectations against standard socio-demographic indicators while using their 'stories' in the qualitative manner as suggested by Smith (2008) so as to better understand their risk preferences for property as opposed to pensions. This paper offers an interpretation of respondents' claims that property investment is less risky than money purchase pension products when planning for retirement (inspired by Fisher 1906).

This is an ambitious undertaking. It requires detailed knowledge of people's expectations and plans, their behavioural traits, and their saving strategies. This type of information is often sensitive to macroeconomic circumstances and especially the phase of house price inflation (and deflation). In this case, we base analysis upon a long-running series of interviews on these topics published by <u>The Sunday Times</u> (see the Appendix for details). Each week, a celebrity is interviewed as to his or her financial position, spending behaviour, and whether they have a pension plan or will rely upon property for their retirement income. The interview is not intended to be an in-depth assessment of the person's financial standing in the community; it is intended to inform, entertain, and draw-out aspects of the interviewee's personal history and prospects relevant to readers. Nonetheless, it is recognised by the newspaper to be a popular segment of the Money section, being increasingly

[1]/. It is arguable that there is a significant long-term shortfall in housing supply in the UK, different in its geographical manifestations and significance than the USA (for example) (Meen 2002). Nonetheless, the period 2000-2009 saw a number of countries' property prices transformed into momentum-plays as the lumpy, illiquid and differentiated attributes of property were financialised (see Clark et al. 2010; Mike Berry, per.com.).

emulated by other newspapers around the world. Few of those interviewed would be identified as experts in financial planning or for that matter the theory and practice of investment.

Interviews follow a recognised format repeated issue upon issue, month by month, year by year. For our purposes, we consider interviews over four consecutive years beginning in January 2007 and concluding with the last issue of the newspaper in December 2010. This provides a database of 316 interviews, with repeated questions and common points of reference. Most importantly, it provides a record of middle-class expectations and prospects from the height of the financial bubble through to the onset of the new age of austerity precipitated by the global financial crisis, the bailout of the UK banking sector, and the tax policies of the governing coalition government. Those interviewed are not public sector employees and rarely come from major corporations; they are either self-employed or have held a string of jobs such that they are largely responsible for their own retirement income. In doing so, they rely upon retail instruments and products from the financial services industry (in contrast to the pension schemes that dominate the public sector and the pension schemes typically offered by major employers). They are more likely representatives of Florida's (2006) "creative class" or Scott's (2008) "cognitive-cultural economy" and Deutschmann's (2011) creative capitalism than McDowell et al.'s (2009) precarious "new economy".

The following section reviews recent research on saving for retirement, noting the significance of the media for financial decision making. This is followed by an assessment of risk – its 'objective' and 'subjective' characteristics based upon Fisher's (1906) seminal treatise on capital investment. Thereafter, a summary of the respondents by age, gender, reported income, and profession (amongst other topics) is provided. The penultimate section of the paper deals specifically with property or pensions or both drawing out respondents' opinions as to the risks of these savings instruments and what seems to be implied by those judgements when discriminating between property in general and the property that they own and live in.[2] The interpretation offered draws upon work in economic geography and finance to the effect that decision making is often rooted in local circumstances (see Clark and O'Connor 1997; Coval and Moskowitz 2001). In conclusion, implications are drawn for research on behaviour and the context in which behaviour is framed.

Saving for retirement

Over the last 50 to 75 years, saving for retirement was the responsibility of institutions rather than individuals. In developed economies, social security is a universal entitlement funded by taxation or a combination of taxation and compulsory contributions. For those involved in supplementary pension schemes, participation has been 'governed' by collective bargaining, employment contracts, and social solidarity (De Deken et al. 2006). In effect, saving for retirement has been 'automatic' rather than a deliberate act framed by reference to individuals' aspirations. However, commitment to individual welfare is increasingly in short supply; where governments have discounted the value of promised social security benefits, employers have found it difficult to deliver on promised pension benefits (Clark 2003). At the workplace, the replacement of defined benefit pensions with defined contribution schemes and money-purchase accounts has meant that individuals have become the 'planning unit' (Langley 2008; 2009): they must decide whether or not to save, how much to save and when (through the life-cycle), and what to choose amongst the investment options as regards their long-term retirement income objectives (however defined). As such, *how* individuals make savings decisions is an essential ingredient in the process of realising long-term retirement income (Lusardi and Mitchell 2008).

[2]/. Throughout, I refer to property in the way that respondents refer to property; that is, as a 'thing' or physical object emphasising its materiality rather than the relations between people that "go into constituting the supposed objects of property" (Maurer 1999, 383). See also Munro and Smith (2008).

The standard way of conceptualising this type of "decision problem" begins with "the alternatives available to the decision maker; events or contingencies that relate actions to outcomes as well as their associated probabilities; and the values associated with the outcomes" (Payne, Bettman, and Johnson 1990, 131). The decision-maker must be able to discriminate between the available alternatives, identify the relevant events or contingencies that may affect expected outcomes of the available options, and be able to assess or estimate the outcomes of those alternatives. For example, saving for retirement may involve a choice between a standard bank account, participation in a sponsored saving scheme, or investment in property (or a combination of the three options). Ideally, those facing these options should be able to discriminate between them according to their underlying costs, likely outcomes, and vulnerability to events that would radically discount or in some way inflate the realised value of such saving schemes. As is apparent, the choice between these three options is likely to be a very complicated issue *if* it is to be an informed decision with reference to historical data and probability.

Being a complex problem, subject to risk and uncertainty, suggests that it is a problem that requires considerable cognitive and material resources not uniformly available across the population (Gabaix et al. 2006). In the this context, the behavioural revolution associated with Kahneman and Tversky (1979) has challenged the rational actor model showing that the framing of decision problems, the difficulties encountered in making informed choices, as well as how people cope with risk and uncertainty can give rise to biases and anomalies inconsistent with first-best solutions. Equally, the lack of adequate resources including advice, information, and experience may reduce these decisions to guesswork subject to radical shifts in opinion and levels of commitment. What is clear from research on retirement planning is that some people are quite sophisticated savers whereas others are not being, at best, naïve in the face of issues they barely understand. By our assessment, it is not a question of rationality *per se* but an issue of decision-making competence and consistency in the context of risk and uncertainty (see Clark et al. 2012 and Strauss 2008; and Lusardi et al. 2010).

At one level, <u>The Sunday Times</u> can be seen as a source of information for individual savers and investors. Like the Money section of the Weekend <u>Financial Times</u>, the newspaper can be seen to complement the resources used by individuals to formulate strategy and make informed decisions. However, research on the relationship between the media, market expectations, and market trading notes the intimate interplay between market hype and market volatility (see Clark et al. 2004 referencing the high-tech bubble of the late 1990s and the early years of the 21st-century). A number of academic papers have shown that the content of local newspapers can prompt city-specific patterns of market trading, going beyond the framing of expectations to actual market behaviour (see, for example, Engelberg and Parsons 2011). This research has reinforced arguments to the effect that whatever the relevance of notionally non-territorial sources of market information and expectations such as the internet, it is apparent that local media including the print media, radio and television can be quite influential in channelling behaviour by emphasising (or not) relevant options for individual investors (Clark and Wójcik 2001).[3]

In this respect, the newspaper can be thought to have an effect on individual behaviour through its reporting of issues where, for example, it raises an issue of 'salience' and, by doing so, prompts individuals to act with respect to that issue. Likewise, through its reporting the newspaper may be

[3]/. Clearly, modern societies are in the midst of a communications revolution which is likely, depending upon countries' cultures and traditions, to result in a radical discounting of the significance of the print media. Newspapers are losing market share in the UK, and will likely continue to do so. However, the available research on the role of internet advice for individual financial decision making seems to suggest that most people discount the value of this medium, preferring colleagues, friends and peers over the worldwide web (Clark et al. 2012; Lusardi et al. 2010). In part it's an issue of trust; it's also an issue of realising the potential of the web given widespread unease about the veracity of the medium.

able to consistently raise an issue or decision problem such that it actually frames or structures how people "see" or conceptualise that issue. This is readily apparent in the campaigns run by the so-called "red top" UK daily newspapers aimed at affecting voter perceptions of government. Critical for this article, newspapers may be seen to actually resolve issues such that readers follow newspapers' implied or advocated investment policies and practices. To illustrate, the Money section of The Sunday Times has consistently raised the importance of property for retirement saving, framing the issue as a choice between property and pensions, and resolving that choice (more often than not) in favour of property rather than pensions using the opinions of those interviewed.

It is arguable, nonetheless, that The Sunday Times simply reports on the apparent preferences of those it interviews, targeting a particular segment of the reader population. In this case, their target audience is, as we suggest above, representative of the creative class and reflects their common aspirations. As such, reporting on stated preferences may reinforce for that target group, and others that would wish to emulate the preferences and behaviour of the group, both the salience of the issue (property as the source of retirement savings) and its significance relative to private, money purchase pension products. Other media outlets may have quite different motives, raising issues and proposing their resolution to favour specific interests that either underwrite those outlets or in some way pay on a fee-for-service basis for topical reporting. Though not relevant to The Sunday Times, there may be a very thin line indeed between media reporting and advertising.

Property, saving, and risk

Saving for retirement can be seen as a process of fund accumulation over the life-cycle (Legros 2006): people normally set aside a portion of their current income in accordance with their retirement income aspirations, relying upon a bank account or something similar. No doubt, many people use bank accounts for immediate debit and credit transactions as well as a means of cash accumulation. Of course, having cash on hand may mean that the accumulation process is tempered by current consumption. So, people may run a series of parallel accounts so as to impose discipline upon their savings intentions. However, the interest paid upon savings accounts, even term deposits, is notoriously low relative to inflation. If customers are not especially aware of the issue, UK banks often 'counsel' customers to consider better-paying options, including investment accounts that rely upon products comprised of traded securities. Some products are "capital guaranteed" and others are not—'miss-selling' to naïve customers has been a recurrent problem in the industry.

Sophisticated versions of financial planning distinguish between 'saving' and 'investment' suggesting that the latter provides a more rigorous framework for realising long-term retirement income goals. That is, it is not simply a question of setting aside a portion of current income for the future, it also involves choosing amongst a broad array of financial products with different time horizons and with different risk characteristics such that savers realise their goals through a combination or portfolio of instruments. Portfolios may be anchored by conventional term deposits and augmented by a range of debt and credit instruments and investment products that rely upon market securities. In this respect, property can be seen as another means of saving for the future with risk and return characteristics that can be balanced or managed against an individual's overall risk exposure. By this logic, whatever the risks associated with one particular savings instrument, portfolio diversification provides a means of managing those risks against an overall target rate of return (retirement income) (Sharpe 2007).

There is a veritable industry based upon modern portfolio theory, linking individual financial planning with institutional investment. It is one of the foundations of financial theory, providing recipes for asset allocation, risk management, and investment planning for banks, insurance companies, pension funds, and endowments (Morrison and Wilhelm 2009). The standard way of characterising risk and return is, of course, via the variance in market rates of return whether measured minute by minute, daily, monthly, yearly etc against some accepted benchmark. So, for example, past returns of fixed income or bond products can be directly compared with equity products returns and, with due regard to the variance in those returns, investors can craft an investment strategy aimed at a certain rate of return based upon some combination of these products. Here, it is assumed that risk can be expressed in terms of the variance of returns and that the underlying probability function which is the basis of determining the variance in returns is compatible across asset classes. In effect, risk can be measured and compared.

At one level, it is widely recognised that most people are risk averse and tend to act against the prospect of loss even if this means compromising on expected rates of return (Kahneman and Tversky 1979). This finding has been replicated in many different settings and cultures and is the basis for the revolution in behavioural psychology (Krueger and Funder 2004). Sharpe (2007, 11) notes, however, that "investors differ in geographic location, in home ownership, profession, and so forth. We term these aspects an individual's *position*. If two people have different positions they may wish to hold different portfolios. Similarly, people may have different feelings about risk, present versus future gratification, and so on." This rather simple but profound statement carries three implications for research. *First*, it would appear that *position* can involve different kinds of assets that may affect individuals' risk preferences and management practices. *Second*, risk preferences can drive the construction of individual retirement savings portfolios. *Third*, risk preferences are more than simply representations of a person's *position*; they may reflect 'states of mind' including emotional proclivities, commitments, and their sense of self. These points are developed in more detail in Clark et al. (2012) with respect to UK patterns of risk preferences.

The idea that risk may be as much 'subjective' as it is 'objective' is routinely acknowledged but obscured by the rush towards the construction of optimal savings portfolios according to clients' expressed risk preferences. In any event, there remains a larger issue to be confronted: what some people count as risk, may not be shared by others who by their *position* are able to make more informed decisions about the risks of various investment options based upon their knowledge and experience. This argument was made by Irving Fisher (1906, 268) many years ago to the effect that risk, or in his terminology "chance" is actually "an affair of human knowledge or ignorance." To explain, Fisher begins by suggesting that the prices of "stocks and bonds" are driven by changing expectations of the future and, in large part, chance events. Using an example of an orange grower in Florida, he suggested that the future value of his or her harvest depends upon chance events or "risks" whose precise incidence is unknown. Whereas some theorists suggest that we might as well toss a coin, Fisher argues that the particularities of specific cases provide those concerned clues for *judging* the nature and significance of risk (and hence discounting its significance).[4]

Note, of course, there are costs associated with the acquisition of case-based data such that, at some point, it may not pay those affected to collect the data needed to tame risk. In between, there would seem to be various strategies used by those who appreciate the costs of risk. By Gigerenzer et al.'s (1999) account, *heuristics*—decision-rules tested and applied to related problems—may be relatively cheap and effective tools for managing risk. To be applicable, investors must determine the salience of a heuristic or set of heuristics and be willing to bear the costs of imperfection (compared to the possible costs of a 'chance' event). Just as relevant may be *filters* that sort apparent risks into hierarchies of potential harm, remediation, and adaptation. In effect, filters may

[4]/. In many respects, Fisher anticipated the related contributions of Knight (1921) and Keynes (1921) on risk and uncertainty although it is important to note that Fisher's conceptualisation remains rooted in a concern for risk rather than uncertainty. See Diebold et al. (2010) for a recent treatment of these same issues, and Zeckhauser's (2010) contribution to that volume which explicitly deals with the relationship between ignorance and uncertainty.

exclude some risks relative to others according to their possible 'unmanaged' costs. Finally, people may *emulate* others' successful strategies of risk control trusting in their advice or at least the empirical evidence. In effect, these strategies seek to *normalise* risk providing those concerned with norms and decision-rules that economise on the collection of data and the use of scarce resources (Hacking 1990).

One striking implication of Fisher's conception of 'risk as ignorance' is that the most valuable risk-management devices are in some sense 'local'; their effectiveness is a product of *position* augmented by information (in Fisher's terms data, notions of cause and effect, and the "scientific" analysis of patterns and processes). A further implication is that for those 'in the market', the available risk-taming strategies may be quite sophisticated because of the scope of information and expert judgement at hand. Those not so fortunate by position, knowing that they are amateurs compared to others with 'better' positions in the market, may retreat to something that they know best or some store of value that can be used to "safeguard" welfare in case of "sudden unforeseen emergencies" (pp. 289-90). Here is a vital, though under-appreciated, aspect of Fisher's conception of risk-management; whereas many treatments of the topic emphasise the location of risk calculation and assessment, just as important is the realisation that the relationship between risk and uncertainty can be fluid and subject to changing circumstances. What may be judged as risk at one time might collapse into uncertainty another time as the bases for risk calculation are shown to be at odds with the underlying imperatives driving economies (see Engelen 2009).

Fisher also noted the existence of a number of other devices for managing or taming risk, including insurance and the use of so-called market "speculators" who, through the use of options, contracts, and hedges, can shift risk to those more able to bear adverse events (see Smith 2009 for a current account of the significance of these risk-shifting devices for western housing markets). One reading of Fisher suggests an argument in favour of portfolio diversification (Stabile and Putnam 2002); for neophytes, however, a "safety-first" strategy may be the best option albeit somewhat myopic in terms of its appreciation of market imperatives (see Roy 1950).

Respondent profiles and opinions

Those interviewed and reported in The Sunday Times come from a segment of society more often discussed in the gossip pages of tabloid newspapers than discussed in the news and opinion pages of broadsheet newspapers. So as to better understand who the respondents were we sought to classify them according to their professions: that is, either their professed work lives or their obvious career affiliations. In 2007, of the 84 respondents 28 were classified as being from the entertainment industry, 21 came from media, 10 were classified as entrepreneurs, and 8 were sporting identities. In 2010, the same categories were important especially media, entertainment, business and entrepreneurship with a sprinkling of other professions including politics, academic life, and sports management. Whereas in 2007 readers would likely have had to know particular sectors to identify those interviewed, by 2010 there were more individuals with reputations that went beyond their specific sphere of life. For example, John McFall (politics), Karren Brady (sports management), and Jon Moulton (business) could claim 'redtop' and broadsheet recognition.

Below, we summarise those interviewed over the period 2007–2010 inclusive making reference to their age, gender, profession, and reported previous year's income. While each interview covered much the same material, typically using the same question or a similarly phrased question, there were inconsistencies between interviews in terms of the posed questions just as, in some cases, respondents either did not respond to the questions as posed, responses were not recorded or, for some reason or other, the reporter did not pose the question. One reporter was responsible for a large proportion of interviews; however, we are not able to ascertain whether non-responses were because the question was not posed or reflected an unwillingness to respond (see the Appendix on the form of interviews). Consequently, there are some gaps in the data. Below we make a series of statements that bear on the type of people interviewed and the scope of the data.

Age and gender: if the age of the respondent was not reported, we undertook an Internet search by their names and were able to fix age and identity for 96% of the cases. Over the four-year period, the mean age of the respondents increased from 44 years to 50 years. On average, female respondents were much younger than male respondents (43 years versus 50 years). Note that of the 316 respondents, one third were female and two thirds were male (101 versus 215). In terms of age distribution by gender, the largest cohort of women was in their 30s whereas the largest cohort of men was in their 50s.

Income and cash in hand: for each of the four years, respondents were asked to give a broad indication of their previous year's income just as they were asked to provide an estimate of the value of cash currently held in their wallets. Just 50% of respondents provided an estimate of their previous year's income with nearly one third of respondents indicating that it was in "six figures". The other respondents reporting earned income were evenly distributed between "five figures" and "seven figures". In terms of cash in hand, the lowest average value of £84 was reported for 2007 whereas the highest average was reported for 2008 of £188. In all years, the estimated standard deviation was very high relative to the mean and medium.

Perceived well-being: respondents were asked whether they had been ever "hard up or broke" and whether they were "better off" than their parents. Approximately 70% of respondents indicated that they had been, in fact, "hard up or broke" in the past with the strongest reporting of this fact coming in 2010. About a third of respondents either were not asked or were not prepared to make a statement about their relative well-being (compared to their parents). Of the nearly 200 respondents who did make a statement, 156 indicated they were better off than their parents whereas 40 indicated that they were not.

Risk and spending behaviour: as for being a spender or saver, responses were split quite evenly between being a saver, a spender, and being someone who was in some sense both. In fact, 105 respondents indicated that they were neither spendthrift nor miserly. They were also asked whether they invested in shares. In 2007, a significant minority did not indicate one way or another whether they invested in shares. Thereafter, responses were dominated by those who did not invest in shares or had done so in the past but not presently (161 compared to 121 share investors).

Property and pensions: a series of questions were asked about saving for retirement. To begin, respondents were asked whether or not they owned property. There was a very high response to this question, with 291 indicating that they did own property, 20 indicating that they did not own property, and just five providing no response. On the question of which is better "pension or property" 180 provided no response, 84 said property was better than the pension, 25 indicated that "both" was the best option, 23 chose the pension option, and four chose neither. Note that the same proportion of men and women indicated "both" and "pensions" but a lower proportion of men indicated "property" (the balance being non-response).

Retirement planning: respondents were asked, as well, whether they had a "pension or other retirement plan"? There was no response from about a third of respondents, 164 (about 50%) indicated that they did have a pension or retirement plan while 55 said they didn't. As well, respondents were asked whether "pensions are worthwhile". More than two thirds of respondents did not provide an answer with just 59 indicating yes and 22 saying no. When asked about how they were going to fund retirement, there was no response from about 50% of respondents with affirmative responses spread across a large number of options including not knowing, a mix of strategies, property and other options, pensions and other options, etc. The largest single category was, perhaps paradoxically, pensions.

The ambivalence of respondents to questions of retirement planning and the various instruments or means of retirement income saving, and the unease of many with respect to conventional pension instruments matches related findings in the social science literature. Whereas financial literacy is a vital ingredient in retirement planning, research suggests that few people are equipped to make informed judgements about the issue (Lusardi and Mitchell 2009). The propensity to engage in retirement planning is highly dependent upon age, income, and gender such that (for example) younger, lower income women often indicate that they may rely upon their partners for retirement saving rather than make plans for themselves (see Strauss 2009). Since a large majority of women respondents were 40 years or younger and about 50% of male respondents were in their 40s or younger, it is not surprising that questions on pension planning were often met with 'silence'. These types of questions prompt considerable unease amongst respondents who, at one level, recognise the general significance of the issue but, for whatever reason, have not found it particularly salient to their current lives and near-term expectations.

It is also apparent that many people are quite myopic; that is, they do not plan for the future privileging current consumption over future consumption, believing rightly or wrongly that the future will take care of itself (Venti 2006). Research in behavioural psychology suggests that myopia is a behavioural trait and that planning for the future is fraught with all kinds of temptations and moments of disjuncture where best intentions are not realised (Ainslie 2001, 2005). Whereas it is reasonable to suppose that humans are planning creatures (Bratman 1987), the time horizon involved in saving for retirement may be so distant that people have difficulty in seeing themselves in 10, 20, even 30 years out. The level of abstraction involved in looking so far forward may be very difficult to manage particularly if their own circumstances are very different from their parents and grandparents. So, whether people believe that pensions or related savings vehicles are important may be anchored by reference to salience (age and income) but may also be judged against current standards of living. In this respect, property may be simultaneously a reflection of current consumption and, de novo, an instrument of self-justification: that is, absent a commitment to a pension or a saving scheme, property may be used to respond to an embarrassing question posed by the interviewer (<u>contra</u> Mellers and McGraw 2004).

Property and pensions

In this section, we seek to clarify the reasons why the UK creative class preferred property returning to the suggestion made by Irving Fisher that risk is not just a statistical artefact but is also a 'feeling' and a 'strategy'. As noted previously, interviews conducted by <u>The Sunday Times</u> over the entire period 2007–2010 asked a number of questions related to the property and pensions issue although with some variation in terms of whether each and every question was posed for each and every interview. For example, over the entire period the reporter asked whether the respondent owned property; nearly every respondent answered, and nearly every respondent said yes. Less consistently asked and answered were questions "What is better, pensions or property?" "Do you have a pension or other retirement plan?" "How are you going to fund your retirement?" and "Do you think pensions are worthwhile/a good thing?"

Intriguingly, there were just four respondents who appeared both in 2007 and in 2010. Considering 2007 was the peak of the property bubble and 2010 was just after the nadir of the global financial crisis, it is worth pausing for a moment to ask whether these four individuals had changed their minds about property in relation to pensions. James Caan (entrepreneur) chose property in 2007 and in 2010 and noted in 2010 that his personal pension included "commercial property as well as other investments." Karren Brady (23rd September 2007) noted "property is my pension" and repeated this assertion in 2010 but also noted that "my husband … got a big pension, which was set up by the Professional Footballers Association." Duncan Bannatyne (entrepreneur) did not declare an opinion in 2007 or in 2010 although he indicated that were he to invest he would do so directly. Finally, in 2007 Theo Paphitis (entrepreneur) recognised that property prices were subject to considerable uncertainty but concluded in 2010 that property "will remain a good place to invest long-term."

We have noted that The Sunday Times has spread their net to include more visible respondents including a handful of recognised economists and pension experts. Two well-known economists from the London School of Economics including Chris Pissarides the Nobel Prize winner were definitive in their choice of pensions over property (both participate in the USS defined benefit pension scheme) whereas Niall Ferguson (in 2008) plumped for both pensions and property as did one of the UK's leading pensions' experts Ros Altmann.[5] Both Meghnad Desai (25th October 2009) and Altmann (31st October 2010) suggested that existing defined benefit pension schemes may not be sustainable over the long term. Importantly, a number of respondents spread across the four years recognised that their choice of property over a conventional pension was appropriate to their circumstances. They also noted that those with a standard employment contract and a predictable career trajectory may be better placed to choose pensions over property especially in circumstances where pension provision is done on a collective basis and attracts favourable tax treatment.

The relevance of a pension for the UK creative class was significant for a number of respondents. Just as important was recognition that because of their career trajectories the type of pension available would typically be a private, money purchase product embodying a number of rather undesirable attributes. Specifically, respondents noted that these types of schemes normally involve significant costs (Nick Wheeler, 2nd May 2010), lock-away contributions even if needed to tidy-over gaps in income (Frank Maguire, 13th July 2008), and can be quite volatile in terms of annual returns and in terms of accumulative account balances (Malcolm O'Kelly, 30th May 2010). Further, a number of respondents observed that these types of pension schemes "seem just so risky" (Linda Barker, 9th December 2007), that "everything can disappear in the blink of an eye" (Barbara Taylor Bradford, 6th September 2009), and "life's a lotto and pensions are the roulette table" (John Creedon, 14th March 2010). Many respondents *recognised the risks* involved in these types of pensions even if they were consumers of these products.

Whatever their expectations about the costs and performance of private pensions, those that plumped for pensions often did so because of tax breaks on contributions. In some cases, tax breaks were determinate—pensions being the "most tax-efficient way to invest" (John Guy, 15th June 2008). In other cases tax breaks contributed to the purchase of pension products although other matters intruded ("I get more excited by property"; John Griffin, 1st August 2010). For higher income individuals, tax breaks were very important not withstanding their capacity to carry a diversified portfolio of more and less sophisticated retirement savings instruments (see PJ Gallagher, 2nd September 2007). But notice, tax breaks figure, more often than not, as an inducement to purchase pension products rather than an additional advantage to purchasing a product desired for its particular virtues. So, for example, in the aftermath of announced government policies to curtail the

[5]/. Two US economists were also interviewed. Roubini (NYU) and Johnson (MIT) were sceptical of the long-term value of property and are participants in TIAA/CREF (a multi-employer defined contribution scheme). The former is known as 'Dr Doom' having forecast the financial crisis at a World Economic Forum event long before most other academics and policy makers acknowledged its possibility. On pensions and property he observed "I think a pension plan is important. I wouldn't buy an extra home as an investment" (21st June 2009). Johnson and Kwak (2010) provide a telling assessment of the causes of the global financial crisis.

tax benefits on pension contributions, Frank Cochran (12th September 2010) noted "I've stopped paying into my self-invested personal pension because it's no longer tax-efficient".[6]

By contrast, a number of respondents characterised investing in property as a retirement savings vehicle as "safer" (Piers Morgan, 9th March 2008; Nancy Dell'Olio, 25th January 2009) or "surer" (Paul-Henri Mathieu, 29th June 2008) than pensions, easier to understand, and less volatile in terms of the possible downside in property prices (compared to pension account balances). As one respondent suggested, "bricks and mortar are real while pensions seem very remote and difficult to understand" (Helen Lederer, 29th November 2009), a sentiment echoed by a number of other respondents including Sophie Mirman (21st November 2010). For a number of respondents, property is a desirable long-term investment because it can ride-out recessions (Britt Lintner, 5th September 2010) while benefiting from recurrent episodes of property price inflation (Jan Ravens, 7th December 2008). That is, the downside risks associated with property were perceived to be much lower than other types of savings vehicles (see again Sophie Mirman, 21st November 2010).

There were a number of respondents who also observed that because property is easier to "understand" (Dom Joly, 4th January 2009) it can be used strategically to realise both short-term and long-term aspirations. That is, a number of respondents suggested that knowledge of its distinctive attributes including location can enable the realisation of "better" returns whether through leverage and strategic investment (Jon Moulton, 28th March 2010).[7] Essentially, these respondents believed their knowledge was such that they could neutralise or manage risk and, in doing so, realise immediate gains and long-term goals. For them, knowledge *tames* risk and allows for the *framing* of effective investment strategies. Along the way, a number of respondents also noted that being "in control" (Trevor Nelson, 15th February 2009) can enable the investor to derive income from property, enjoy property as a consumption good, and ultimately even pass-on accumulated property wealth as a bequest to dependents and their grandchildren (Sanjeev Bhaskar, 5th August 2007). By this logic, being 'in control' means treating risk as *malleable* and *manageable* in ways not possible through conventional money purchase pension products.

Some respondents recognised, however, there may be a balance to be struck between private pensions and property investment. So, for example, Martin Johnson (30th September 2007) noted "it's good to spread your risk", Toby Anstis (31st August 2008) echoed this sentiment, as did Stanley Fink (6th December 2009) and Lawrence Dallaglio (18th April 2010). But many also noted that risk-spreading was contingent upon being able to do so; responses were often hedged with the realisation that, given individuals' resource constraints, it may not be possible. As Dallaglio noted "ideally, you want to have both".

By many academic accounts, pension saving products are transparent in design and performance whereas property is a rather opaque investment dominated by local factors. Drawing on the analytical logic developed in Clark and O'Connor (1997) and the argument of Coval and Moskowitz

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6/. Whereas the UK government has sought to scale-back incentives for pension saving, many of the tax incentives on owner-occupied homes, rental property and property investment have remained in force reinforcing the relative value of property over conventional pension saving instruments. Here, we are unable to deal with this issue in any detail but note that housing experts believe this issue is crucial in understanding UK property prices over the past 20 years (Susan Smith, per.com).

7/. It is notable that very few respondents acknowledged the use of leverage implied by property investment, especially in the lead-up to the peak of the housing bubble in the UK and the USA. Only Moulton indicates that leverage is involved, and that risk can be embraced and managed so as to realise long-term objectives. He is, of course, an expert investor rather than a neophyte more like Langley's (2009) entrepreneurial "self-disciplined" investor than "the everyday investor" who is actually highly risk-adverse even if prone to moments of uncontained over-confidence.

(2001) regarding the 'geography' of investment, we might have expected respondents to have valued pension savings products *because* they are relatively easily compared, one to another, in terms of reported costs, returns, and the risks of achieving desired goals. In fact, most respondents believed these products to be very 'risky' in that they did not understand the nature and scope of these products but did appreciate the fact that pension investment through traded securities is vulnerable to global turbulence. By contrast, the 'local' nature of property was widely recognised but valued as such; for respondents, property investment comes with local or idiosyncratic risks that can be either anticipated or managed in ways that generic pension products cannot be managed. In part, it is an issue of *controlling* risk just as it is also an issue of *conceptualising* the risks that are relevant and amenable to management.

Notice, however, an important finding: whereas respondents willing to express their view about property versus pensions would choose the former over the latter, it was apparent that many of these respondents had previously chosen to purchase pension products (either by themselves or as part of their previous employment contracts).[8] One interpretation of this finding may be that having observed the losses on pension products over the first decade of the 21st-century and especially the global financial crisis, respondents have had their doubts confirmed. With adverse changes in tax benefits, given the choice again (or going forward) respondents would choose property over pensions. A related interpretation may be that being loss averse (as most people are; see Kahneman and Tversky 1979), respondents would avoid repeating a losing retirement saving strategy (an adaptive response consistent with Payne et al. 1990). But there is a further possibility; being embarrassed by the poor returns of chosen pension products, respondents signalled their intention to go with property mimicking the stated preferences of their peers: others interviewed in the "Fame and Fortune" portion of the Money section of the newspaper.

Conclusions

The global financial crisis exposed many facile assumptions and unsustainable commitments. Being intimately associated with the property bubble, the crisis demonstrated that otherwise independent risks can converge and reinforce one another such that individuals' current incomes and accumulated wealth become mirror images of one another. In the United States, of course, the housing bubble burst in spectacular fashion with significant macroeconomic consequences and long-term implications for the coordination of regional and national housing and labour markets (Posner 2010). In the UK, the bursting of the property bubble also caused the discounting of property prices and the dampening of house price inflation. Nonetheless, a number of the respondents in The Sunday Times database suggested that property remained their preferred long-term savings vehicle (compared to money purchase pension saving schemes).

The logic behind this expressed preference is entirely plausible: for a number of the respondents, property prices have only marginally declined against their 2007 peak and have largely retained the massive windfall gains in house prices over the period 1995 to 2007. By contrast, a number of respondents have seen the value of their money purchase pension schemes collapse by virtue of their exposure to local and global financial market turbulence. Indeed, it can be shown that, for pension savers relying upon a diversified portfolio of traded securities, the nominal value of such a retirement savings investment portfolio did not increase over the past decade and actually declined in real value. Worse, in some circumstances, the combination of high administrative costs and very poor investment performance has meant that a number of The Sunday Times respondents commented that their future prospects were very dim.

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[8]/. See, for example, Janet Street Porter (20th January 2008) who noted "I still have membership of about three pension schemes, which I joined only because they were compulsory at some of the companies I have worked for."

Most respondents were quite wary of the risks involved in saving for retirement; their particular circumstances, being members of the UK creative class, were such that like an increasing number of people in the private sector they are entirely responsible for saving for retirement beyond the very modest benefits attributable to the Basic State Pension. Risk can be characterised in many different ways, most often by reference to the probability of certain adverse outcomes based upon an assumed probability distribution (normal or otherwise). There are more and less sophisticated versions of risk-as-probability, some of which seek to integrate underlying risk potentials with events and expectations. In this paper, we sought to characterise risk as a combination of 'objective' and 'subjective' characteristics drawing inspiration from Irving Fisher's (1906) conception of risk as ignorance. There are, of course, many versions of his insight represented, for example, at the limit by Bayesian modelling (see Oaksford and Chater 2007).

Here, however, we emphasised respondents' belief that the risks associated with saving through property markets are malleable and manageable. By contrast, it was noted that many respondents believed that the risks associated with saving through money purchase pension products were difficult to understand and, at the limit, unable to be managed by the purchasers of such products. In effect, respondents believed that the idiosyncratic risks associated with property were closer at hand and more reasonably understandable than the systemic global risks associated with investment products based upon traded securities. For many respondents, when confronted with the question property or pensions, the choice was entirely obvious: invest in property assuming that the associated risks can be managed through respondents' knowledge and understanding of local circumstances. Indeed, in a number of cases, respondents explained that they knew or had opportunity to know about those risks in ways not available to most others.

This turns upside-down conventional expectations as regards the perceived value of a diversified investment portfolio. Whereas modern portfolio theory has shown that risk management is best accomplished through the construction of an investment portfolio with various savings instruments whose risks are largely uncorrelated, the global financial crisis confounded those expectations when assumed uncorrelated risks became, in fact, highly correlated. As such, diversity was not an adequate safeguard against the worst-case scenario. Against expectations, in the UK property turns out to have been more than adequate as a long-term savings vehicle <u>if</u> those invested in property had an established foothold and were able to carry the costs of property down through the crisis and out to the other side of the crisis. Accordingly, investment in bricks and mortar was deemed by respondents to have been a successful hedge against financial turbulence. By this logic, respondents' social and spatial *position* was determinate in providing a vantage point from which to judge risk and manage property risks.

Of course, we must take care not to exaggerate <u>The Sunday Times</u> respondents' financial sophistication. For many, the choice between pensions and property is an absolute choice in the sense that their current incomes combined with expected volatility in earnings is such that most can really only afford one or the other. Considering that property, especially housing, is also a consumption good with related emotional meanings (Munro and Smith 2008) it is likely that respondents conflated the short-term with the long-term advantages of holding property rationalising current consumption in terms of the promised advantages of property upon retirement. As such, the choice of property over pensions may have been "explained" in ways that justified a rather naïve assumption that the choice of property will work out in the long term (not withstanding claims to the contrary; see the 9th March 2011 LEX Column of the Financial Times where it is argued that "house prices in the capital are still overvalued by one-third compared with historic levels"). Put slightly differently, it is not obvious that the average respondent to <u>The Sunday Times</u> Money section is a sophisticated investor.

On the other hand, we should take care not to disparage the views and opinions of The Sunday Times respondents. Many experts have observed that individual money purchase pension schemes are highly variable in terms of their costs, their transparency, and their value for money. The UK government has sought to provide for the entire working population a retirement savings vehicle that is cost-effective, transparent, and reliable thereby compensating for the virtual collapse in the private sector of collective defined benefit pension schemes. This initiative may be especially important for the UK creative class given variability in employment, volatility in earned income, and the many problems associated with having pension entitlements trailing behind their career opportunities. Nonetheless, experts and government would not encourage private sector employees to abandon pension savings in favour of property investment. The story told in The Sunday Times about the benefits of property investment in the face of the global financial crisis, should be balanced by stories where property investment has not been the success as represented by the optimistic stories recounted in broadsheet newspapers.

Appendix. The Sunday Times Money section

The Sunday Times is the UK's biggest selling Sunday newspaper, with an average January 2011 net circulation of 1,039,067. By comparison, the Money section of the Weekend Financial Times is very much a niche player; the FT's average January 2011 net circulation was reported to be 383,067. Owned by Rupert Murdoch's News International, The Sunday Times is the companion newspaper to The Times with a reported average January 2011 daily circulation of 457,000, and other specialist bi-weeklies including the Times Literary Supplement and the Times Higher Education Supplement.[9] The Money section is one of six broadsheet sections of the newspaper, augmented by the newspaper's magazine, fashion and culture supplements. With 10 pages, the Money section has equal status with the other sections of the newspaper.

The content of the Money section is comprised of regular features including "Fame and Fortune" which appears each week on the back page of the Money section, occupying the entire page. Other features include reporting on 'best buys' of financial products and services, relevant data on markets, and commentary on investment trends and prospects. It is focused upon individuals, not institutions. In comparison to the Business section of the newspaper, it is less concerned with economic policy, corporations, and global trends than it is with the options and prospects for individual investors. The editor and her team are responsible for the content of the section, but not the advertising or relationships with advertisers–there is a deliberate break between editorial content and commercial advertising throughout the newspaper. As a consequence, the editor may not be aware of the advertising content of each and every issue until received.

Readership of the Money section is quite broad, extending from small business and entrepreneurs through to professions such as law and accounting. If there is an overarching theme to the Money section, its readers are interested in information and consumer affairs relevant to their circumstances. The Money section does not advocate or recommend investment products or styles of investment nor does it seek to take sides in current debates about individual investment strategy. In contrast to the Money section of the Financial Times, it is somewhat optimistic about the capacity of individuals to manage their own affairs.

The "Fame and Fortune" feature has appeared for many years, and is a popular part of the Money section. Over the period 2007 to 2010, one reporter was largely responsible for the interviews subject to the oversight of the editor (who previously also conducted interviews for the feature). Most interviews are conducted over the phone or through the internet, using a standard set of

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[9]/. Figures on net circulation come from www.abc.org.uk Note, the UK's largest selling daily broadsheet newspaper is the Daily Telegraph with a reported January 2011 average of 650,000.

questions to set the agenda. However, the reporter tends to follow the interviewee rather than impose an *a priori* structure upon the process. In the past, the feature has sought out famous people for their stories but found them to be less revealing than the current group of interviewees who are the focus of the feature. If there are common ideas or themes that join together readers and interviewees, they tend to be sceptical of pensions, dislike financial advisers, and are wary of financial experts. In many cases interviewees are quite successful individuals, optimistic about their prospects, and confident in their ability to make good on their aspirations.

Inevitably, interviewees tend to gloss-over situations and events that reflect poorly on their character or judgement emphasising their success relative to where they began and their peers. As von Hippel and Trivers (2011) observe "people are impressed by confidence in others" (p.4), "self-enhancing biases are evident in a wide variety of domains and strategies among a wide variety of peoples" (p.5) and "self-deception is a useful tool in negotiating the social world" (p.13). It is notable that respondents were often reluctant to disclose information such as how much they are "worth" and how much they actually earned the previous year. At one level, it would seem that interviewees are prone to self-promotion. However, as the editor of the Money section has noted, it is oftentimes difficult to get the cooperation of those whom the newspaper would wish to interview. Recently, the editor has sought out academic experts for their stories recognising the upheaval occasioned by the global financial crisis.

Bibliography

Ainslie, G. 2001. *Breakdown of Will*. Cambridge: Cambridge University Press.

Ameriks, J., Caplin, A., Laufer, S. and van Nieuwerburgh, S. 2011. The joy of giving or assisted living? Using strategic surveys to separate public care aversion from bequest motives. *Journal of Finance* 66:519-61.

Bratman, M. E. 1987. *Intention, Plans, and Practical Reason*. Cambridge, MA: Harvard University Press.

Clark, G. L. 2003. *European Pensions & Global Finance*. Oxford: Oxford University Press.

Clark, G. L., Duran-Fernandez, R. and Strauss, K. 2010. 'Being in the market': the UK house-price bubble, savvy investors, and individual retirement savings portfolios. *Journal of Economic Geography* 10: 331-59.

Clark, G. L. and O'Connor, K. 1997. The informational content of financial products and the spatial structure of the global financial industry. In Cox, K. R. (ed.), *Spaces of Globalization: Reasserting the Power of the Local*. New York: Guilford Press, pp. 89-144.

Clark, G. L., Strauss, K. and Knox-Hayes, J. 2012. *Saving for Retirement*. Oxford: Oxford University Press (forthcoming).

Clark, G. L., Thrift, N. and Tickell, A. 2004. Performing finance: the industry, the media, and its image. *Review of International Political Economy* 11: 289-310.

Clark, G. L. and Wójcik, D. 2001. The City of London in the Asian crisis. *Journal of Economic Geography* 1: 107-30.

Coval, J. D. and Moskowitz, T. J. 2001. The geography of investment: informed trading and asset prices. *Journal of Political Economy* 109: 811-41.

De Deken, J. J., Ponds, E. and van Reil, B. 2006. Social solidarity. In Clark, G. L., Munnell, A. and Orszag, M. (eds.), *The Oxford Handbook of Pensions and Retirement Income*. Oxford: Oxford University Press, pp. 141-60.

Deutschmann, C. 2011. A pragmatic theory of capitalism. *Socio-Economic Review* 9:83-106.

Diebold, F. X., Doherty, N. A. and Herring, R. J. (eds) 2010. *The Known, the Unknown, and the Unknowable in Financial Risk Management*.

Disney, R., Henley, A. and Stears, G. 2002. Housing costs, house price shocks and savings behaviour among older households in Britain. *Regional Science and Urban Economics* 32(5): 607-25.

Engelberg, J. E. and Parsons, C. A. 2011. The causal impact of media in financial markets. *Journal of Finance* 66: 67-97.

Engelen, E. 2009. Learning to cope with uncertainty: on the spatial distributions of financial innovation and its fallout. In Clark, G. L., Dixon, A. D. and Monk, A. H. B. (eds.), *Managing Financial Risks: From Global to Local*. Oxford: Oxford University Press, pp. 120-39.

Fisher, I. 1906. *The Nature of Capital and Income*. New York: Macmillan.

Florida, R. 2006. *The Rise of the Creative Class*. New York: Basic Books.

Gabaix, X., Laibson, D., Moloche, G. and Weinberg, S. 2006. Costly information acquisition: experimental analysis of a boundedly rational model. *American Economic Review* 96: 1043-68.

Gigerenzer, G., Todd, P. M., and the ABC Research Group. 1999. *Simple Heuristics That Make Us Smart*. New York: Oxford University Press.

Hacking, I. 1990. *The Taming of Chance*. Cambridge: Cambridge University Press.

Johnson, S. H. and Kwak, J. 2010. *13 bankers: The Wall Street Takeover and the Next Financial Melt-Down*. New York: Pantheon.

Kahneman, D. and Tversky, A. 1979. Prospect theory: an analysis of decision under risk. *Econometrica* 47: 263-92.

Keynes, J. M. 1921. *A Treatise on Probability*. London: Macmillan.

Knight, F. 1921. *Risk, Uncertainty, and Profit*. Boston: Houghton Mifflin Company.

Krueger, J. I. and Funder, D. C. 2004. Towards a balanced social psychology: causes, consequences, and cures for the problem-seeking approach to social behaviour and cognition. *Behavioral and Brain Sciences* 27: 313-28.

Langley. P. 2008. *The Everyday Life of Global Finance*. Oxford: Oxford University Press.

Langley. P. 2009. Consumer credit, self-discipline, and risk management. In Clark, G. L., Dixon, A. D. and Monk, A. H. B. (eds.), *Managing Financial Risks: From Global to Local*. Oxford: Oxford University Press, pp. 280-300.

Legros, F. 2006. Life-cycle options and preferences. In Clark, G. L., Munnell, A. and Orszag, M. (eds.), *The Oxford Handbook of Pensions and Retirement Income*. Oxford: Oxford University Press, pp. 183-200.

Lusardi, A. and Mitchell, O. S. 2007. Baby boomer retirement security: the roles of planning, financial literacy, and housing wealth. *Journal of Monetary Economics* 54: 205-24.

Lusardi, A. and Mitchell, O. S. 2008. Planning and financial literacy: how do women fare? *American Economic Review* 98:413-17.

Lusardi, A. and Mitchell, O. S. and Curto, V. 2010. Financial literacy among the young. *Journal of Consumer Affairs* 44:358-80.

Maurer, B. 1999. Forget Locke? From proprietor to risk-bearer in new logics of finance. *Public Culture* 11:47-67.

McDowell, L., Batnitzky, A. and Dyer, S. 2009. Precarious work and economic migration: emerging immigrant divisions of labour in Greater London's service sector. *International Journal of Urban and Regional Research* 33: 3-25.

Meen, G. 2002. The time series properties of house prices: a transatlantic divide? *Journal of Housing Economics* 11:1-23.

Mellers, B. and McGraw, A. P. 2004. Self-serving beliefs and the pleasure of outcomes. In Brocas, I. and Cartillo, J. D. (eds.), *The Psychology of Economic Decisions. Volume 2: Reasons and Choices*. Cambridge: Cambridge University Press, pp. 31-46.

Morrison, A. D. and Wilhelm, W. J. 2007. *Investment Banking: Institutions, Politics, and Law*. Oxford: Oxford University Press.

Munro, M. and Smith, S. J. 2008. Calculated affection? Charting the complex economy of home purchase. *Housing Studies* 23: 349-67.

Oaksford, M. and Chater, N. 2007. *Bayesian Rationality: The Probabilistic Approach to Human Reasoning*. Oxford: Oxford University Press.

Payne, J. W., Bettman, J. R., and Johnson, E. J. 1990. The adaptive decision-maker: effort and accuracy in choice. In Hogarth, R. M. (ed.), *Insights in Decision-making: a Tribute to Hillel J Einhorn*. Chicago: University of Chicago Press, pp. 129-53.

Posner, R. A. 2010. *The Crisis of Capitalist Democracy*. Cambridge MA: Harvard University Press.

Reinhart, C. M. and Rogoff, K. S. 2009. *This Time is Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press.

Roy, A. D. 1950. Safety first and the holding of financial assets. *Econometrica* 20: 431-49.

Scott, A. J. 2008. *Social Economy of the Metropolis: Cognitive-Cultural Capitalism and the Global Resurgence of Cities*. Oxford: Oxford University Press.

Sharpe, W. F. 2007. *Investors and Markets*. Princeton: Princeton University Press.

Smith, S. J. 2008. Owner-occupancy: living with a hybrid of money and materials. *Environment and Planning A* 40: 520-35.

Smith, S. J. 2009. Managing financial risks: the strange case of housing. In Clark, G. L., Dixon, A. D. and Monk, A. H. B. (eds.), *Managing Financial Risks: From Global to Local*. Oxford: Oxford University Press, pp. 233-37.

Smith, S. J., Searle, S. A. and Cook, N. 2009. Rethinking the risks of owner occupation. *Journal of Social Policy* 38: 83-102.

Stabile, D. R. and Putnam, B. H. 2002. Irving Fisher and statistical approaches to risk. *Review of Financial Economics* 11: 191-203.

Strauss, K. 2008. Re-engaging with rationality: the context of UK pension decision-making. *Journal of Economic Geography* 8: 137-56.

Strauss, K. 2009. Gender, risk, and occupational pensions. In Clark, G. L., Dixon, A. D. and Monk, A. H. B. (eds.), *Managing Financial Risks: From Global to Local*. Oxford: Oxford University Press, pp. 258-79.

Venti, S. 2006. Choice, behaviour and retirement saving. In Clark, G. L., Munnell, A. and Orszag, M. (eds.), *The Oxford Handbook of Pensions and Retirement Income*. Oxford: Oxford University Press, pp. 603-17.

von Hippel, W. and Trivers, R. 2011. The evolution and psychology of self-deception. *Behavioral and Brain Sciences* 34:1-15 & 41-56.

Zeckhauser, R. 2010. Investing in the unknown and the unknowable. In Diebold, F. X., Doherty, N. A., and Herring, R. J. (eds.), *The Known, the Unknown, and the Unknowable in Financial Risk management: Measurement and Theory Advancing Practice*. Princeton: Princeton University Press, pp. 304-46.